

# Projections and Planning Information

**UPDATES  
FOR  
ORANGE COUNTY**

Replace Module D: Projections

**EMPLOYMENT DEVELOPMENT DEPARTMENT**

**LABOR MARKET INFORMATION DIVISION**

FOR QUESTIONS ABOUT THIS REPORT, CALL (916) 262-2162.



# Table of Contents

## **Module D: Industry and Occupational Projections**

Introduction .....	D-1
Descriptions of Industry and Occupational Tables .....	D-3
Industry Trends and Outlook .....	D-5
Table 1: Employment by Major Industry .....	D-6
Table 2: Industry Employment Projections .....	D-7
Occupational Trends and Outlook .....	D-9
Training Level Definitions .....	D-11
Table 3: Employment by Occupational Group .....	D-12
Table 4: Occupations with the Greatest Job Growth .....	D-13
Table 5: Occupations with the Fastest Job Growth.....	D-15
Table 6: Occupational Employment Projections .....	D-17
Table 7: Occupations with the Most Job Openings .....	D-39
Table 8: Occupations with Projected Job Loss .....	D-41
Appendix .....	End
Standard Industrial Classification Manual (SIC)	
Standard Occupational Classification System (SOC)	
North American Industry Classification System (NAICS)	
Projection Methods and Economic Assumptions	
Alphabetical Index of Occupations	



# Introduction to Projections

## Using Projections Data

Projections contained in these tables provide information for estimating job opportunities, developing training programs, and gaining insight into employment trends. However, before reaching any final conclusions, users should consider the following:

*Remember that these data are estimates.* They were developed on the assumption that historical trends will continue into the future. However, events may occur during the seven-year projection period that are impossible to predict. Events such as military base closures, major business closures or openings, and natural disasters can have a major impact on employment levels.

*Do not use these projections as your sole source of information.* Use other more recent sources of local economic data to corroborate the projection data. This information may be found in documents such as those published by the EDD's Labor Market Information Division, local chambers of commerce or economic development agencies.

*Projections employment data are annual averages.* These averages may not accurately portray seasonal occupations or industries such as those found in agriculture, retail sales, recreation and construction.

*Employment levels stated reflect workers who are covered by the Unemployment Insurance program.* As a result, industries that are made up largely of individuals who are self-employed will be understated. Examples include industries such as real estate, hair salons and bookkeeping. Occupations such as dental hygienists and consultants will also show an understated level of employment.

## Industry Projections

Projections by industry forecast the anticipated changes within an industry over time. Forecasts are based on past employment trends and then are refined by a review of current economic developments.

Industry employment projections utilize employment data from both the Current Employment Statistics (CES) program and the Employment Payroll (ES202) program. There is a certain amount of error built into both systems. These errors may include employers classified in the wrong industry, incorrect employment levels reported by the employer and employment reported in the wrong county.

If a major industry category shows a decrease in future employment, it may be that only one or two industry components are experiencing the decline and other components are still expected to hire new workers. It is best to investigate all sectors of the industry. For example, retail trade has several components: building materials and garden supplies; general merchandise stores; food stores; automotive dealers and service stations; and apparel and accessory stores, to name a few.

Geographical differences account for differing employment opportunities. If an individual is considering relocating from one area of the state to another, the size of the industry and its expected growth level need to be kept in mind. Small rural counties will not have the same employment possibilities as do the larger metropolitan areas.

## Knowing Future Industry Trends

- helps economic development professionals foster compatible growth and promote an area's strengths.
- helps government agencies, non-profit agencies, researchers and other interested parties formulate plans and proposals.
- helps people seeking work and those doing counseling and/or job placement learn about employment opportunities in various industries.

## Occupational Projections

Projections by occupation estimate the changes in occupational employment over time resulting from industry growth. Changes in the number, size and type of employers within a geographical area will affect the demand for certain occupations. Also, technological advances or changes in laws or regulations may affect the occupational mix.

General changes in the work place affect some occupations. Jobs may be created, eliminated or consolidated due to restructuring or regulations affecting the requirements for the job. For example, personal computers and word processing programs eliminated many typist jobs, but created a need for word processors.

An occupational title does not give details about the occupation. An individual starting a career search may want to look at the various occupations in this module, choose any that are of interest and then do further research. There are other sources of information for

occupations and their specifics, such as skills and educational requirements, hourly earnings, benefits, working conditions and advancement opportunities.

Occupational staffing patterns used for the projections process are developed from the annual OES Survey of employers. The survey utilizes a sample of the entire universe of Unemployment Insurance (UI) covered employers. Because it is a survey, it is important that the following points be considered:

- There is inherent statistical error as a result of both the sampling process and the level of employer response to the survey mailings.
- OES staffing patterns may contain errors due to problems employers may have in completing the survey. These errors typically include: misunderstanding of survey instructions, misinterpretation of occupational definitions and/or titles contained on the forms, and clerical errors in filling out the forms.
- The employer's response to the survey may reflect conditions that are atypical. They may be experiencing a temporary shutdown, seasonal high or low employment, or a temporary increase in demand for their product or service.

Occupational projections data indicate major occupations and which occupations are likely to offer the greatest number of job opportunities. When possible, the user should focus on larger groups rather than specific occupations. Some occupations may not appear in published tables because of the low number of people employed in that area or because of confidentiality concerns.

Although an occupation may be stable and not expected to grow, this does not mean that there are no opportunities for employment. All occupations have turnover opportunities. Individuals change or leave jobs permanently for varying reasons. High turnover, especially in occupations requiring lower skill levels, would mean that there are frequent openings even though there is little or no growth.

Occupational projections data are prepared for employment and training planners, vocational educators, and others who need information on future employment by occupation. The outlook information can be used in making occupational training decisions and career choices. Employers considering expansion or relocation may find the data helpful in understanding the occupational composition and trends in California and its 58 counties.

#### **Additional Sources of Information**

Additional information on economic conditions in a particular area can be accessed through Labor Market Information Division consultants, who provide information about economic activities within the counties they serve, and EDD One Stop locations, where additional publications and information may be obtained. Other sources include:

- Wage And Salary Employment by Industry
- Occupational Outlook Handbook (BLS)
- California Occupational Guides
- California Association for Local Economic Development
- Chambers of Commerce
- Economic Development Organizations
- Newspapers
- Standard Industrial Classification Manual

#### **Automated Access**

Electronic access to current data is available through the EDD's Internet address at:

**[www.calmis.ca.gov](http://www.calmis.ca.gov)**

For information about the Web site or to order publications, please call (916) 262-2162.

# Description of Projection Tables

**Employment** includes nonagricultural wage and salary workers, except for self-employed persons, unpaid family workers, private household workers, and those involved in labor-management trade disputes. An **industry division** refers to a distinct group of private, public or nonprofit enterprises engaged in producing goods or providing services. With the exception of government, industries are classified by the Standard Industrial Classification (SIC) system. Industries are then grouped into ten major categories according to the economic activity involved:

*Agriculture, Forestry, and Fishing* includes establishments primarily engaged in agricultural production, forestry, commercial fishing, hunting and trapping, and related services.

*Mining* includes all establishments involved in the extraction of minerals, crude petroleum and natural gas, including quarrying, milling and related activities.

*Construction* includes establishments engaged in contract construction, including new work, additions, and repairs performed by general and special trade contractors.

*Manufacturing* includes establishments which are usually described as plants, factories or mills engaged in producing or processing nondurable or durable goods. These typically use power-driven machines and material-handling equipment.

*Transportation and Public Utilities* includes enterprises engaged in passenger and freight transportation by surface, water and air, warehousing and other transportation services. It also includes the communications complex of telephone, telegraph, radio and television; and the utilities providing gas, electric and sanitary services.

*Wholesale Trade* includes establishments involved in selling merchandise to industrial, commercial, farm, construction contractors and professional businesses; retailers; or other wholesalers.

*Retail Trade* includes establishments involved in the selling of merchandise for personal or household consumption and rendering services incidental to the sale of goods.

*Finance, Insurance, and Real Estate* includes banks, savings and loan institutions and security and commodity brokerages, insurance agencies and carriers, real estate

sales and management offices, and rental and planning agencies.

**Services** includes establishments such as hotels, laundries, auto repair shops, theaters, legal services, advertising services, private schools and hospitals, and nonprofit organizations which are engaged in rendering a variety of services to individuals and businesses.

**Government** includes legislative, judicial, administrative and regulatory activities of federal, state, local and international governments; and federal, state and local government hospitals and education. Note also, for the federal government sector, employment includes all civilian employees regardless of the activities in which they are engaged.

## Industry Tables

*Employment By Major Industry (Table 1)* This table shows 2001 estimated employment and 2008 projected employment along with the percentage of total employment for each major industry division.

*Employment By Industry (Table 2)* This table shows estimated employment for 2001 and projected employment by industry for 2008. The SIC code for each group is also listed. The "Employment Change" columns provide the projected change in employment between 2001 and 2008 and the percent change or growth rate over the seven-year period.

**Occupations** are classified on the basis of work performed and required skills, education, training, or credentials. Based on the Standard Occupational Classification (SOC) system, workers are classified at four levels of aggregation: major group; minor group; broad occupation; and detailed occupation. All occupations are clustered into one of the following 23 major occupation groups:

- *Management*
- *Business and Financial Operations*
- *Computer and Mathematical*
- *Architecture and Engineering*
- *Life, Physical, and Social Science*
- *Community and Social Services*
- *Legal*

- *Education, Training, and Library*
- *Arts, Design, Entertainment, Sports, and Media*
- *Healthcare Practitioners and Technical*
- *Healthcare Support*
- *Protective Service*
- *Food Preparation and Serving and Serving Related*
- *Building and Grounds Cleaning and Maintenance*
- *Personal Care and Service*
- *Sales and Related*
- *Office and Administrative Support*
- *Farming, Fishing, and Forestry*
- *Construction and Extraction*
- *Installation, Maintenance, and Repair*
- *Production*
- *Transportation and Material Moving Operations*
- *Military Specific Operations*

### **Occupational Tables**

*Employment by Occupational Group (Table 3)* This table shows 2001 and 2008 employment and projected employment for major occupational groups. The "Absolute Change" column gives the number of job opportunities resulting from the creation of new jobs. "Percent Change" shows the percentage change for each occupational group.

*Occupations with the Greatest Job Growth (Table 4)* This table lists the 50 occupations that are projected to register the largest numerical change between 2001 and 2008. In general, these occupations are numerically large. Some have average projected rates of growth, but because of their employment size will add significant numbers of new jobs over the 2001–2008 period.

*Occupations with the Fastest Job Growth (Table 5)* This table lists the 50 occupations with the greatest projected percentage increases, providing a different perspective to future occupational employment changes. Please note that some of these are increasing rapidly from relatively small employment levels and not necessarily found in Table 4.

*Occupational Employment Projections (Table 6)* This table provides occupational detail for up to 800 occupations. Annual average employment in each occupation is shown for 2001 and 2008. The column headed "Number" under

employment change presents the number of job opportunities resulting from the creation of new jobs. The "Percent" column shows the percentage change for each occupation. The next column, "Separations," shows job opportunities that are created by workers leaving the occupation.

Also included in this table is a codes column, showing the California SOC code for each occupational title. The Alphabetical Index of Occupations section may be used to locate occupations in the detailed table.

*Occupations With The Most Openings (Table 7)* This table lists the occupations projected to register the largest absolute growth and separations between 2001 and 2008.

*Occupations With Projected Job Loss (Table 8)* This table lists the occupations projected to decline over the 2001–2008 period. Declining employment is a sign that the occupation has no growth. However, turnover may result in some job opportunities.

# Industry Trends and Outlook

The Employment Development Department (EDD) projects that Orange County's nonfarm employment will grow by 214,900 jobs, from 1,418,300 to 1,633,200, or 15.2 percent, during the 2001-2008 forecast period. All major industry divisions will see growth except mining, the county's smallest industry. (Please note that the department does not include agriculture in this analysis.)

**Services**, the largest industry division in Orange County, will grow by 98,200 jobs, or nearly 46 percent of all job growth, with growth concentrated in:

- Business services (up 41,900 jobs led by advances in personnel supply, temporary help services, and increased demand for computer programming and computer related services)
- Other services (up 14,700 jobs)
- Health services (up 14,200 jobs)
- Engineering and management services (up 11,500 jobs)

**Trade** will grow by 45,300 jobs as retail gains 29,500 and wholesale gains 15,800 jobs. Retail will see expansion in all segments of this division, with eating and drinking places

leading with 13,800 additional jobs. In wholesale trade, durable goods will add 11,200 jobs and 4,700 additional payroll jobs are anticipated in nondurable goods.

**Manufacturing** employment will increase by 23,900 jobs, mostly in the durable goods category, which will add 17,800 jobs led by:

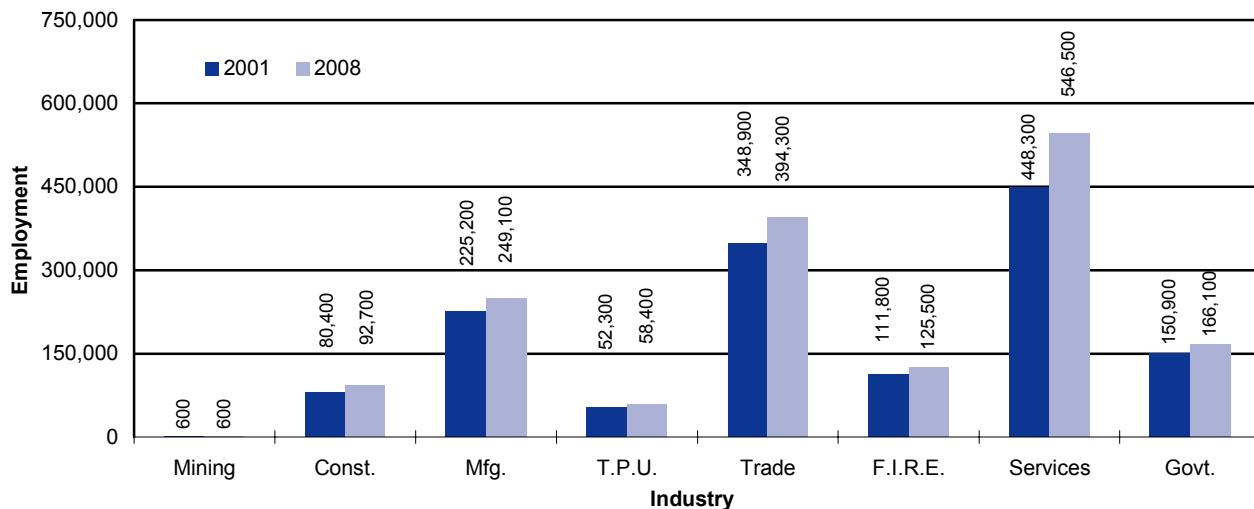
- Electronic equipment (up 4,700 jobs)
- Transportation equipment (up 3,700 jobs)
- Communications equipment and electronic components and accessories (up 3,400 jobs)
- Instruments and related products (up 3,400 jobs)

The nondurable goods category should add 6,200 jobs, with gains concentrated in the textile mill products and apparel, and paper, printing and publishing groups.

**Government** employment will expand by 15,200 jobs. Local government will account for the majority of the increase, as local education will add 9,500 jobs.

**Finance, insurance and real estate** employment will expand by 13,700 jobs. Finance, the largest group in this

**Employment by Major Industry  
2001–2008**



industry division, will gain 5,300 jobs. The real estate group will add 4,700 jobs as the construction industry continues to expand. The insurance sector should expand by 3,600 payroll jobs.

**Construction** will increase by 12,300 jobs. Demand for construction workers will increase in both residential and commercial building. Special trade contractors (plumbing, painting, electrical work, carpentry, and an array of other construction specialties) will account for most of the job gains (9,200 jobs).

**Transportation and public utilities** should increase by 6,100 jobs, with more than half of the gain, 3,800 jobs, in the transportation sector. The remaining growth will come from communications and public utilities.

Employment in the **mining** industry will remain steady at the 2001 level of 600 jobs.

**Table 1: Employment by Major Industry<sup>1</sup>**  
**2001 – 2008**  
**Orange County**

Industry	2001 <sup>2</sup>	Percent of Total	2008	Percent of Total
<b>Total Nonfarm</b>	<b>1,418,300</b>	<b>100.0%</b>	<b>1,633,200</b>	<b>100.0%</b>
<b>Mining</b>	<b>600</b>	<b>0.0%</b>	<b>600</b>	<b>0.0%</b>
<b>Construction</b>	<b>80,400</b>	<b>5.7%</b>	<b>92,700</b>	<b>5.7%</b>
<b>Manufacturing</b>	<b>225,200</b>	<b>15.9%</b>	<b>249,100</b>	<b>15.3%</b>
<b>Transportation and Public Utilities</b>	<b>52,300</b>	<b>3.7%</b>	<b>58,400</b>	<b>3.6%</b>
<b>Trade</b>	<b>348,900</b>	<b>24.6%</b>	<b>394,300</b>	<b>24.1%</b>
<b>Finance, Insurance, and Real Estate</b>	<b>111,800</b>	<b>7.9%</b>	<b>125,500</b>	<b>7.7%</b>
<b>Services</b>	<b>448,300</b>	<b>31.6%</b>	<b>546,500</b>	<b>33.5%</b>
<b>Government</b>	<b>150,900</b>	<b>10.6%</b>	<b>166,100</b>	<b>10.2%</b>

<sup>1</sup>Employment and projections contained in these tables are considered estimates (see introduction for a full explanation of data limitations). Employment is reported by place of work and excludes self-employed persons, unpaid family workers, domestics, volunteers, and those involved in labor-management trade disputes. These data are based on 1987 Standard Industrial Classifications. Annual average industry detail may not add up to totals due to independent rounding. Government data include all civilian government employees regardless of the activities in which they are engaged.

<sup>2</sup>March 2001 benchmark.

**Table 2: Industry Employment Projections<sup>1</sup>**  
**2001 – 2008**  
**Orange County**

Industry	SIC	Annual Average Employment		Employment Change	
		2001 <sup>2</sup>	2008	Number	Percent
<b>TOTAL NONFARM</b>	<b>10-99(ex88) 074,075,078</b>	<b>1,418,300</b>	<b>1,633,200</b>	<b>214,900</b>	<b>15.2</b>
<b>GOODS PRODUCING</b>	<b>10-39</b>	<b>306,200</b>	<b>342,400</b>	<b>36,200</b>	<b>11.8</b>
<b>MINING</b>	<b>10-14</b>	<b>600</b>	<b>600</b>	<b>0</b>	<b>0.0</b>
<b>CONSTRUCTION</b>	<b>15-17</b>	<b>80,400</b>	<b>92,700</b>	<b>12,300</b>	<b>15.3</b>
General Building Contractors	15	17,200	19,700	2,500	14.5
Heavy Construction	16	4,500	5,100	600	13.3
Special Trade	17	58,700	67,900	9,200	15.7
<b>MANUFACTURING</b>	<b>20-39</b>	<b>225,200</b>	<b>249,100</b>	<b>23,900</b>	<b>10.6</b>
Durable Goods	24,25,32-39	151,700	169,500	17,800	11.7
Lumber and Wood Products	24, 25	12,300	13,000	700	5.7
Stone, Clay, & Glass	32	3,500	4,000	500	14.3
Primary & Fabricated Metals	33,34	21,800	23,400	1,600	7.3
Industrial Machinery	35	21,700	23,700	2,000	9.2
Computer & Office Equipment	357	6,100	6,700	600	9.8
Other Industrial Machinery	35x	15,700	17,000	1,300	8.3
Electronic Equipment	36	39,500	44,200	4,700	11.9
Communications Equip., Electronic Comp.	366,367	26,400	29,800	3,400	12.9
Other Electronic Equipment	36x	13,200	14,400	1,200	9.1
Transportation Equipment	37	19,500	23,200	3,700	19.0
Aircraft & Parts	372	8,200	9,500	1,300	15.9
Missiles, Spacecraft, & Parts	376	5,800	6,900	1,100	19.0
Other Transportation Equipment	37x	5,600	6,800	1,200	21.4
Instruments & Related Products	38	27,800	31,200	3,400	12.2
Search & Navigation Equipment	381	6,300	6,800	500	7.9
Measuring & Control Devices	382	9,100	9,900	800	8.8
Other Instruments & Related Devices	38x	12,500	14,500	2,000	16.0
Miscellaneous Manufacturing	39	5,500	6,800	1,300	23.6
Nondurable Goods	20-23,26-31	73,400	79,600	6,200	8.4
Food & Kindred Products	20	9,800	10,700	900	9.2
Canned, Cured, & Frozen Foods	203,2091,2092	2,600	2,800	200	7.7
Other Food & Kindred Products	20x	7,200	7,900	700	9.7
Textile Mill Products & Apparel	22,23	19,600	21,400	1,800	9.2
Paper, Printing, & Publishing	26,27	20,600	22,200	1,600	7.8
Chemicals, Petroleum, & Coal Products	28,29	10,500	11,900	1,400	13.3
Rubber, Plastics, & Leather Products	30,31	12,900	13,400	500	3.9
<b>SERVICE PRODUCING</b>	<b>40-99(ex88) 074,075,078</b>	<b>1,112,200</b>	<b>1,290,800</b>	<b>178,600</b>	<b>16.1</b>
<b>TRANSPORTATION AND PUBLIC UTILITIES</b>	<b>40-42,44-49</b>	<b>52,300</b>	<b>58,400</b>	<b>6,100</b>	<b>11.7</b>
Transportation	40-42,44-47	27,900	31,700	3,800	13.6
Local & Interurban Passenger Trans.	41	4,100	4,700	600	14.6
Trucking & Warehousing	42	10,800	12,200	1,400	13.0
Air Transportation	45	6,800	7,800	1,000	14.7
Other Transportation		6,100	7,000	900	14.8
Communications and Public Utilities	48,49	24,400	26,700	2,300	9.4
Communications	48	18,400	19,900	1,500	8.2
Electric, Gas, & Sanitary Services	49	6,000	6,800	800	13.3

**Table 2: Industry Employment Projections<sup>1</sup>**  
**2001 – 2008**  
**Orange County**

Industry	SIC	Annual Average Employment		Employment Change	
		2001 <sup>2</sup>	2008	Number	Percent
<b>TRADE</b>	<b>50-59</b>	<b>348,900</b>	<b>394,300</b>	<b>45,400</b>	<b>13.0</b>
Wholesale Trade	50,51	101,800	117,600	15,800	15.5
Wholesale Durable	50	72,300	83,500	11,200	15.5
Wholesale Nondurable	51	29,400	34,100	4,700	16.0
Retail Trade	52-59	247,200	276,700	29,500	11.9
Building Materials & Garden Supplies	52	11,200	14,000	2,800	25.0
General Merchandise	53	20,900	22,200	1,300	6.2
Food Stores	54	26,800	27,700	900	3.4
Automotive Dealers & Services	55	21,000	22,900	1,900	9.0
Apparel & Accessory Stores	56	16,800	19,000	2,200	13.1
Eating and Drinking Places	58	99,600	113,400	13,800	13.9
Other Retail Trade		50,900	57,500	6,600	13.0
<b>FINANCE, INSURANCE, &amp; REAL ESTATE</b>	<b>60-65,67</b>	<b>111,800</b>	<b>125,500</b>	<b>13,700</b>	<b>12.3</b>
Finance	60-62,67	47,500	52,800	5,300	11.2
Insurance	63,64	35,400	39,000	3,600	10.2
Real Estate	65	29,000	33,700	4,700	16.2
<b>SERVICES</b>	<b>70-89 (ex 88) 074,075,078</b>	<b>448,300</b>	<b>546,500</b>	<b>98,200</b>	<b>21.9</b>
Hotels and Other Lodging Places	70	19,900	22,400	2,500	12.6
Personal Services	72	13,600	16,300	2,700	19.9
Business Services	73	140,800	182,700	41,900	29.8
Amusement, Including Movies	78,79	37,300	44,600	7,300	19.6
Health Services	80	82,800	97,000	14,200	17.1
Private Educational Services	82	15,100	18,400	3,300	21.9
Engineering & Management Services	87	50,700	62,200	11,500	22.7
Other Services		88,200	102,900	14,700	16.7
<b>GOVERNMENT</b>		<b>150,900</b>	<b>166,100</b>	<b>15,200</b>	<b>10.1</b>
Federal Government		12,000	12,300	300	2.5
Department of Defense		1,300	1,200	-100	-7.7
Other Federal Government		10,700	11,100	400	3.7
State and Local Government		138,900	153,800	14,900	10.7
State Government		25,600	28,600	3,000	11.7
State Education		15,400	17,200	1,800	11.7
Other State Government		10,200	11,400	1,200	11.8
Local Government		113,300	125,200	11,900	10.5
Local Education		73,200	82,700	9,500	13.0
Local Noneducation		40,000	42,500	2,500	6.3

<sup>1</sup>Employment and projections contained in these tables are considered estimates (see introduction for a full explanation of data limitations). Employment is reported by place of work and excludes self-employed persons, unpaid family workers, domestics, volunteers, and those involved in labor-management trade disputes. These data are based on 1987 Standard Industrial Classifications. Annual average industry detail may not add up to totals due to independent rounding. Government data include all civilian government employees regardless of the activities in which they are engaged.

<sup>2</sup>March 2001 benchmark.

# Occupational Trends and Outlook

Job growth or decline is influenced by the overall level of economic activity in a given area; that is, when economic activity refers to the overall economic growth or decline of industries and/or changes in occupation distributions within individual industries. Each area's economic climate influences the growth or decline of occupations that account for a large number of jobs within that area. In contrast, occupations with a small number of workers grow or decline as a result of the growth or decline of their specific industries.

This section provides a discussion of major trends for occupation categories shown in **Table 6: Occupational Employment Projections** (beginning on page D-18). Projected changes in the level of employment in each occupation are an estimate of new job openings expected over a seven-year period. Separations, an estimate of the number of people leaving the workforce or an occupation, accounts for additional job openings. These estimates do not include job openings that are a result of people who change jobs but stay in the same occupation.

## Orange County

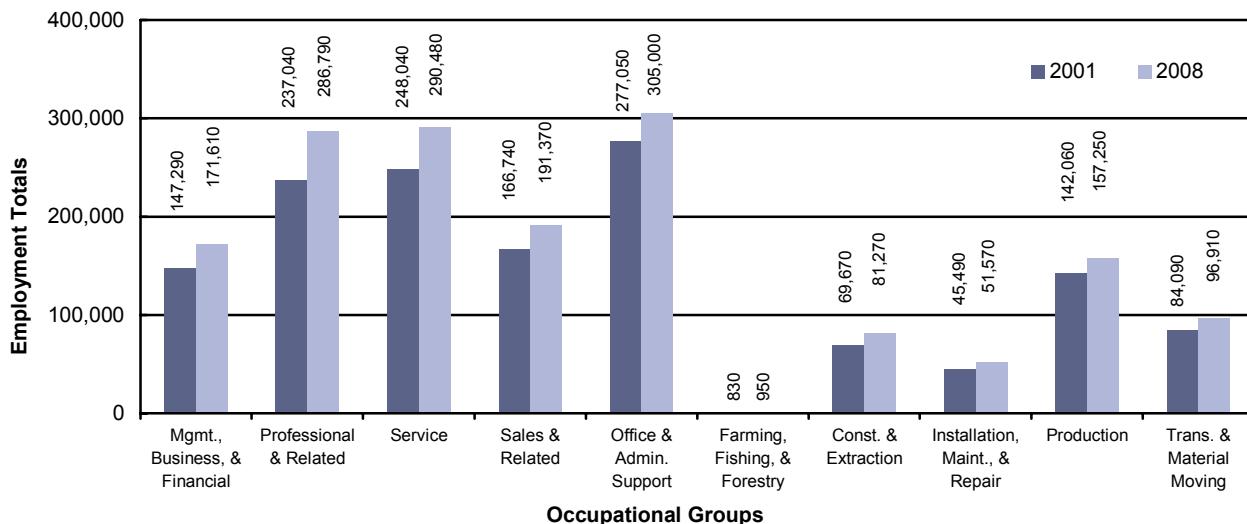
In 2001, Orange County had a total of 1,418,300 workers employed in all industries. Employment projections call for that number to reach 1,633,200 by 2008. This represents an annual growth rate of 2.2 percent, a rate the same as the 2.2 percent growth rate predicted for

California as a whole. Separations will add another 258,820 job openings.

The largest occupational group in 2001 in Orange County was *office and administrative support occupations*. Office and administrative occupations employed 277,050 persons in 2001 and is projected to grow to 305,000 jobs by 2008, a 10.1 percent growth rate or 27,950 new jobs. The second-largest occupational group was *service occupations* with employment of 248,040 in 2001. This group is expected to add 42,440 new jobs to reach 290,480 by 2008, a 17.1 percent growth rate. The third-largest group was *professional and related occupations* with 2001 employment of 237,040 and expected growth of 21 percent (49,750 jobs) to a 2008 total of 286,790. The fastest growing group is *professional and related occupations* with a growth rate of 21 percent, followed by *service occupations* at 17.1 percent.

The occupation with the greatest growth is *retail salespersons*, up 6,490 jobs (see **Table 4: Occupations with the Greatest Job Growth**). These jobs are found mostly at department stores; miscellaneous shopping goods stores; family clothing stores; and lumber and other building materials. *Customer service representatives* are next, up 5,830 jobs, and employed by insurance agents, brokers, and service agents; telephone communications; personnel supply services; and medical service and health insurance

**Major Occupational Category Growth  
2001–2008**



# Occupational Trends and Outlook

services. Third is *janitors and cleaners (except maids and housekeeper cleaners)* up 5,210 jobs. They can be found in services to buildings; elementary and secondary schools; real estate agents and managers; and miscellaneous amusement (recreation services). Fourth is *office clerks (general)*, adding 4,800 jobs and employed primarily in personnel supply services; local government (except hospital and education); elementary and secondary schools; and offices of physicians. *Cashiers* will add 4,580 new jobs and can be found in grocery stores; miscellaneous shopping goods stores; radio, television and computer stores; and drug stores and proprietary stores.

The fastest growing occupation will be *computer support specialists*, up 59.2 percent (see **Table 5: Occupations with the Fastest Job Growth**). This occupation is found largely in computer and data processing services; professional and commercial equipment; electronic components and accessories; and personnel supply services. The second-fastest growing occupation is *network and computer systems administrators*, which is up 50.8 percent. This occupation is employed mostly in computer and data processing services; professional and commercial equipment; electronic components and accessories; and local government (except hospital and education). *Computer software engineers (systems software)* will be up 50.3 percent in employment by 2008. These jobs work mostly in computer and data processing services; computer and

office equipment; guided missiles; space vehicles (parts); and nonstore retailers. Next is *computer software engineers (applications)*, which will increase 48.5 percent. They are employed in computer and data processing services; electronic components and accessories; professional and commercial equipment; and search and navigation equipment. *Network systems and data communications analysts* will be up 44.9 percent by 2008. Network systems and data communications analysts work predominately in computer and data processing services; electronic components and accessories; medical services and health insurance; and professional and commercial equipment.

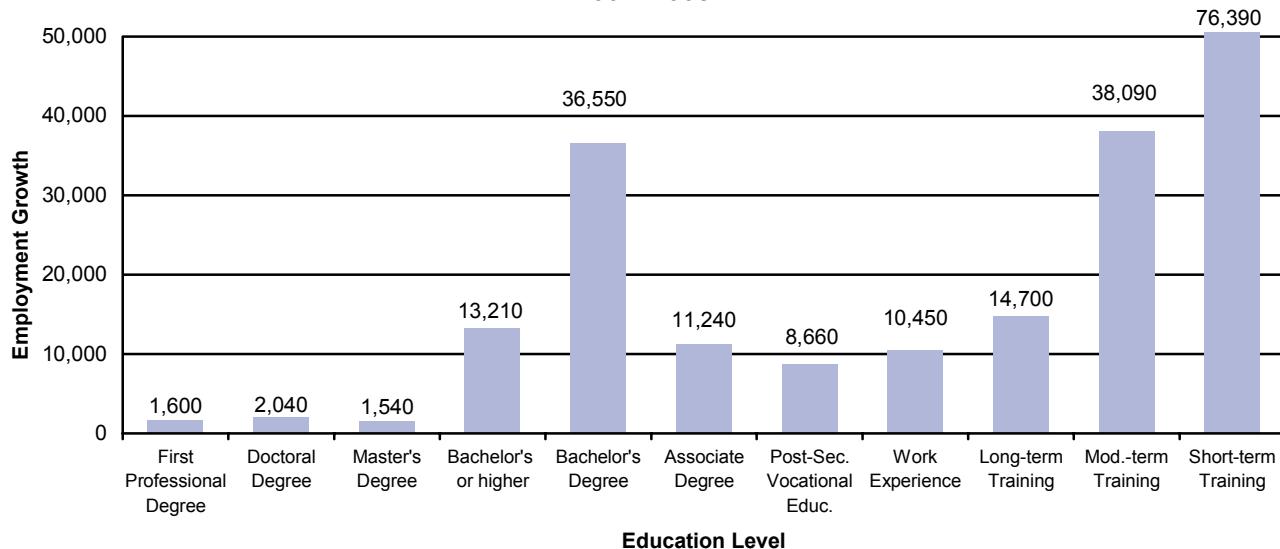
## Training

The greatest number of new jobs (76,390 or 36 percent) in Orange County will require **short-term on-the-job training**. The next largest number of new jobs (38,090 or 18 percent) jobs will be entry-level requiring **moderate-term on-the-job training**. Some 36,550 or 17 percent of the new jobs will require a **bachelor's degree**. **Long-term on-the-job** training positions are projected to increase by 14,700 or 6.8 percent of all new jobs.

The chart below displays the number of new jobs by education and experience levels. For more detailed descriptions of training levels, refer to the definitions on the following page.

**Employment Growth by Education and Experience Levels**

**2001–2008**



# Training Level Definitions

Occupational training and education classifications were developed by the Bureau of Labor Statistics to improve on prior classification systems that did not distinguish between occupations with comparable educational requirements. For example, neither carpenters nor laborers require formal education beyond high school, but the complexity of the work and the training time required results in carpenters being placed in the long-term on-the-job training category and laborers placed in the short-term on-the-job training category. Of course there is more than one way to qualify for a job. In this classification system, the education and training required reflects the manner in which most workers become proficient in that occupation and the preferences of most employers.

---

## **First professional degree (1)**

Occupations that require at least two years of full-time academic study beyond a bachelor's degree (for example, law, medicine, dentistry and clergy).

## **Doctoral degree (2)**

Occupations that require at least three years of full-time academic study beyond a bachelor's degree, culminating in a doctoral degree.

## **Master's degree (3)**

Occupations that require the completion of a master's degree program, which is usually one to two years beyond a bachelor's degree.

## **Bachelor's or higher, some work experience (4)**

Occupations that generally require work experience in an occupation requiring a bachelor's or higher degree. Most occupations in this category are managerial occupations that require work experience in a related non-managerial occupation.

## **Bachelor's degree (5)**

Occupations that require the completion of at least 4, but not more than 5 years, of full-time academic study beyond high school resulting in a Bachelor's degree.

## **Associate degree (6)**

Occupations that require the completion of at least 2 years of full-time academic study beyond high school.

## **Post-secondary vocational education (7)**

Occupations that require completion of vocational school training.

## **Work experience (8)**

Occupations that require skills obtained through work experience in a related occupation.

## **Long-term on-the-job training (9)**

Occupations that require more than 12 months of on-the-job training or combined work experience and formal classroom instruction for workers to develop the skills needed for average job performance.

## **Moderate-term on-the-job training (10)**

Occupations in which workers can develop average job performance after 1 to 12 months of combined on-the-job experience and informal training.

## **Short-term on-the-job training (11)**

Occupations in which workers can develop skills needed after a short demonstration or up to one month of on-the-job experience and instruction.

**Table 3: Employment by Occupation Group  
2001 – 2008  
Orange County**

Occupational Group	2001 <sup>1</sup>	Percent of Total	2008	Percent of Total	Absolute Change	Percent Change
Total, All Occupations	1,418,300	100.0%	1,633,200	100.0%	214,900	15.2%
Management, Business, and Financial	147,290	10.4%	171,610	10.5%	24,320	16.5%
Professional and Related	237,040	16.7%	286,790	17.6%	49,750	21.0%
Service	248,040	17.5%	290,480	17.8%	42,440	17.1%
Sales and Related	166,740	11.8%	191,370	11.7%	24,630	14.8%
Office and Administrative Support	277,050	19.5%	305,000	18.7%	27,950	10.1%
Farming, Fishing, and Forestry	830	0.1%	950	0.1%	120	14.5%
Construction and Extraction	69,670	4.9%	81,270	5.0%	11,600	16.6%
Installation, Maintenance, and Repair	45,490	3.2%	51,570	3.2%	6,080	13.4%
Production	142,060	10.0%	157,250	9.6%	15,190	10.7%
Transportation and Material Moving	84,090	5.9%	96,910	5.9%	12,820	15.2%

<sup>1</sup>Total is based on the March 2001 Benchmark.

**Table 4: Occupations with the Greatest Job Growth<sup>1</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		BLS Training Level	Education/Experience
		2001 <sup>2</sup>	2008	Number	Percent		
41-2031	Retail Salespersons	44,760	51,250	6,490	14.5	11	Short-Term On-The-Job-Training
43-4051	Customer Service Representatives	23,190	29,020	5,830	25.1	10	Moderate-Term On-The-Job-Training
37-2011	Janitors & Clean, Ex Maids & Housekeep Cleaner	23,130	28,340	5,210	22.5	11	Short-Term On-The-Job-Training
43-9061	Office Clerks, General	33,940	38,740	4,800	14.1	11	Short-Term On-The-Job-Training
41-2011	Cashiers	33,270	37,850	4,580	13.8	11	Short-Term On-The-Job-Training
35-3031	Waiters & Waitresses	25,810	29,630	3,820	14.8	11	Short-Term On-The-Job-Training
35-3021	Comb Food Prep & Serving Wrks, Incl Fast Food	16,460	20,220	3,760	22.8	11	Short-Term On-The-Job-Training
11-1021	General & Operations Managers	25,810	29,540	3,730	14.5	4	Bachelor's or Higher and Some Work Exp.
33-9032	Security Guards	13,550	16,980	3,430	25.3	11	Short-Term On-The-Job-Training
15-1031	Computer Software Engineers, Applications	6,700	9,950	3,250	48.5	5	Bachelor's Degree
37-3011	Landscaping & Groundskeeping Workers	16,490	19,670	3,180	19.3	11	Short-Term On-The-Job-Training
53-7062	Laborers & Freight, Stock, & Material Movers,	20,080	23,260	3,180	15.8	11	Short-Term On-The-Job-Training
15-1041	Computer Support Specialists	5,300	8,440	3,140	59.2	6	Associate Degree
29-1111	Registered Nurses	14,160	17,140	2,980	21.0	6	Associate Degree
41-4012	Sales Reps, Whsale & Mfg, Ex Tech & Scientific	23,150	25,860	2,710	11.7	10	Moderate-Term On-The-Job-Training
43-4171	Receptionists & Information Clerks	15,170	17,630	2,460	16.2	11	Short-Term On-The-Job-Training
25-9041	Teacher Assistants	12,130	14,520	2,390	19.7	11	Short-Term On-The-Job-Training
35-2014	Cooks, Restaurant	13,900	16,280	2,380	17.1	9	Long-Term on-the-Job-Training
43-5081	Stock Clerks & Order Fillers	17,490	19,510	2,020	11.5	11	Short-Term On-The-Job-Training
53-3033	Truck Drivers, Light or Delivery Services	10,710	12,680	1,970	18.4	11	Short-Term On-The-Job-Training
25-2021	Elementary School Teachers, Except Special Ed	14,610	16,570	1,960	13.4	5	Bachelor's Degree
43-6011	Executive Secretaries & Administrative Assist	17,200	19,060	1,860	10.8	10	Moderate-Term On-The-Job-Training
51-2092	Team Assemblers	18,610	20,460	1,850	9.9	10	Moderate-Term On-The-Job-Training
15-1071	Network & Computer Systems Administrators	3,620	5,460	1,840	50.8	5	Bachelor's Degree
53-7064	Packers & Packagers, Hand	12,300	14,120	1,820	14.8	11	Short-Term On-The-Job-Training
43-1011	First-Line Sups/Mgrs of Office & Admin Support	16,600	18,340	1,740	10.5	8	Work Experience
41-1011	First-Line Sups/Mgrs of Retail Sales Workers	12,300	14,030	1,730	14.1	8	Work Experience
13-2011	Accountants & Auditors	10,370	12,090	1,720	16.6	5	Bachelor's Degree
43-5071	Shipping, Receiving, & Traffic Clerks	13,950	15,670	1,720	12.3	11	Short-Term On-The-Job-Training
37-2012	Maids & Housekeeping Cleaners	8,820	10,530	1,710	19.4	11	Short-Term On-The-Job-Training

**Table 4: Occupations with the Greatest Job Growth<sup>1</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		BLS Training Level	Education/Experience
		2001 <sup>2</sup>	2008	Number	Percent		
15-1051	Computer Systems Analysts	4,640	6,270	1,630	35.1	5	Bachelor's Degree
47-2061	Construction Laborers	9,500	11,120	1,620	17.1	10	Moderate-Term On-The-Job-Training
53-3032	Truck Drivers, Heavy & Tractor-Trailer	8,060	9,680	1,620	20.1	10	Moderate-Term On-The-Job-Training
31-1012	Nursing Aides, Orderlies, & Attendants	7,630	9,210	1,580	20.7	11	Short-Term On-The-Job-Training
15-1032	Computer Software Engineers, Systems Software	3,000	4,510	1,510	50.3	5	Bachelor's Degree
11-2022	Sales Managers	5,370	6,860	1,490	27.7	4	Bachelor's or Higher and Some Work Exp.
47-2031	Carpenters	9,850	11,280	1,430	14.5	9	Long-Term On-the-Job-Training
11-3031	Financial Managers	8,010	9,420	1,410	17.6	4	Bachelor's or Higher and Some Work Exp.
11-3021	Computer & Information Systems Managers	4,080	5,460	1,380	33.8	4	Bachelor's or Higher and Some Work Exp.
47-2111	Electricians	6,390	7,760	1,370	21.4	9	Long-Term On-the-Job-Training
31-9092	Medical Assistants	4,690	6,010	1,320	28.1	10	Moderate-Term On-The-Job-Training
43-3031	Bookkeeping, Accounting, & Auditing Clerks	17,840	19,130	1,290	7.2	10	Moderate-Term On-The-Job-Training
35-2021	Food Preparation Workers	9,070	10,320	1,250	13.8	11	Short-Term On-The-Job-Training
25-2031	Secondary School Teachers, Ex Special & Voc Ed	6,920	8,120	1,200	17.3	5	Bachelor's Degree
41-2021	Counter & Rental Clerks	5,610	6,700	1,090	19.4	11	Short-Term On-The-Job-Training
49-9042	Maintenance & Repair Workers, General	10,470	11,500	1,030	9.8	9	Long-Term on-the-Job-Training
11-1011	Chief Executives	6,380	7,340	960	15.0	4	Bachelor's or Higher and Some Work Exp.
49-3023	Automotive Service Technicians & Mechanics	5,910	6,840	930	15.7	7	Post-Secondary Vocational Education
31-9091	Dental Assistants	3,460	4,380	920	26.6	10	Moderate-Term On-The-Job-Training
11-2021	Marketing Managers	3,660	4,540	880	24.0	4	Bachelor's or Higher and Some Work Exp.
<b>TOTAL OF THESE OCCUPATIONS</b>		<b>664,120</b>	<b>779,290</b>	<b>115,170</b>	<b>17.3</b>		

<sup>1</sup>Excludes All Other categories.

<sup>2</sup>March 2001 Benchmark.

**Table 5: Occupations with the Fastest Job Growth<sup>1</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Number	Percent	BLS Training Level	Education/Experience
		2001 <sup>2</sup>	2008				
15-1041	Computer Support Specialists	5,300	8,440	3,140	59.2	6	Associate Degree
15-1071	Network & Computer Systems Administrators	3,620	5,460	1,840	50.8	5	Bachelor's Degree
15-1032	Computer Software Engineers, Systems Software	3,000	4,510	1,510	50.3	5	Bachelor's Degree
15-1031	Computer Software Engineers, Applications	6,700	9,950	3,250	48.5	5	Bachelor's Degree
15-1081	Network Systems & Data Communications Analyst	1,380	2,000	620	44.9	5	Bachelor's Degree
37-2021	Pest Control Workers	680	940	260	38.2	10	Moderate-Term On-The-Job Training
15-1061	Database Administrators	1,570	2,160	590	37.6	5	Bachelor's Degree
15-1051	Computer Systems Analysts	4,640	6,270	1,630	35.1	5	Bachelor's Degree
11-3021	Computer & Information Systems Managers	4,080	5,460	1,380	33.8	4	Bachelor's Or Higher & Some Work Exp.
29-2055	Surgical Technologists	610	810	200	32.8	7	Post-Secondary Vocational Education
29-1126	Respiratory Therapists	760	1,000	240	31.6	6	Associate Degree
29-1127	Speech-Language Pathologists	610	800	190	31.1	3	Master's Degree
21-1093	Social & Human Service Assistants	1,220	1,590	370	30.3	10	Moderate-Term On-The-Job Training
39-5092	Manicurists & Pedicurists	1,090	1,420	330	30.3	7	Post-Secondary Vocational Education
25-2041	Special Ed Teachers, Preschl, Kindergarten, Elm Ed	870	1,130	260	29.9	5	Bachelor's Degree
17-2081	Environmental Engineers	910	1,180	270	29.7	5	Bachelor's Degree
29-1071	Physician Assistants	710	920	210	29.6	5	Bachelor's Degree
27-3031	Public Relations Specialists	1,540	1,990	450	29.2	5	Bachelor's Degree
29-2052	Pharmacy Technicians	1,440	1,860	420	29.2	10	Moderate-Term On-The-Job Training
49-2098	Security & Fire Alarm Systems Installers	1,090	1,400	310	28.4	7	Post-Secondary Vocational Education
31-9092	Medical Assistants	4,690	6,010	1,320	28.1	10	Moderate-Term On-The-Job Training
13-2052	Personal Financial Advisors	500	640	140	28.0	5	Bachelor's Degree
27-1024	Graphic Designers	2,720	3,480	760	27.9	5	Bachelor's Degree
11-2022	Sales Managers	5,370	6,860	1,490	27.7	4	Bachelor's Or Higher & Some Work Exp.
49-9062	Medical Equipment Repairers	1,050	1,340	290	27.6	10	Moderate-Term On-The-Job Training
29-2071	Medical Records & Health Information Technician	870	1,110	240	27.6	6	Associate Degree
21-1023	Mental Health & Substance Abuse Social Worker	400	510	110	27.5	3	Master's Degree
11-2031	Public Relations Managers	620	790	170	27.4	4	Bachelor's Or Higher & Some Work Exp.
31-9091	Dental Assistants	3,460	4,380	920	26.6	10	Moderate-Term On-The-Job Training
11-2011	Advertising & Promotions Managers	1,580	2,000	420	26.6	4	Bachelor's Or Higher & Some Work Exp.

**Table 5: Occupations with the Fastest Job Growth<sup>1</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Number	Percent	BLS Training Level	Education Experience
		2001 <sup>2</sup>	2008				
43-4081	Hotel, Motel, & Resort Desk Clerks	2,100	2,650	550	26.2	11	Short-Term On-The-Job Training
39-9021	Personal & Home Care Aides	1,770	2,230	460	26.0	11	Short-Term On-The-Job Training
41-2012	Gaming Change Persons & Booth Cashiers	770	970	200	26.0	11	Short-Term On-The-Job Training
29-2021	Dental Hygienists	1,670	2,100	430	25.7	6	Associate Degree
33-9032	Security Guards	13,550	16,980	3,430	25.3	11	Short-Term On-The-Job Training
39-9031	Fitness Trainers & Aerobics Instructors	3,080	3,860	780	25.3	7	Post-Secondary Vocational Education
43-4051	Customer Service Representatives	23,190	29,020	5,830	25.1	10	Moderate-Term On-The-Job Training
27-1014	Multi-Media Artists & Animators	440	550	110	25.0	5	Bachelor's Degree
41-9011	Demonstrators & Product Promoters	2,280	2,840	560	24.6	10	Moderate-Term On-The-Job Training
11-9111	Medical & Health Services Managers	1,570	1,950	380	24.2	4	Bachelor's Or Higher & Some Work Exp.
19-4051	Nuclear Technicians	620	770	150	24.2	6	Associate Degree
11-2021	Marketing Managers	3,660	4,540	880	24.0	4	Bachelor's Or Higher & Some Work Exp.
27-1025	Interior Designers	920	1,140	220	23.9	5	Bachelor's Degree
43-4111	Interviewers, Except Eligibility & Loan Occupational Therapists	1,300 800	1,610 990	310 190	23.8 23.8	11 5	Short-Term On-The-Job Training Bachelor's Degree
29-1122	Reservation & Trans Ticket Agents & Travel Clerk	1,150	1,420	270	23.5	11	Short-Term On-The-Job Training
43-4181	Heating, Air Conditioning, & Refrigeration Mech	1,540	1,900	360	23.4	9	Long-Term On-The-Job Training
49-9021	Chemical Technicians	640	790	150	23.4	6	Associate Degree
19-4031	Gaming Dealers	3,440	4,230	790	23.0	7	Post-Secondary Vocational Education
39-3011	Child Care Workers	2,440	3,000	560	23.0	11	Short-Term On-The-Job Training
<b>TOTAL OF THESE OCCUPATIONS</b>		<b>130,010</b>	<b>169,950</b>	<b>39,940</b>	<b>30.7</b>		

<sup>1</sup>Excludes All Other categories and occupations of less than 400 in the year 2001.

<sup>2</sup>March 2001 Benchmark.

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
00-0000	Total, All Occupations	1,418,300	1,633,200	214,900	15.2	258,820		
11-13-0000	Management, Business, & Financial Occupations	147,290	171,610	24,320	16.5	19,640		
11-0000	Management Occupations	89,400	104,340	14,940	16.7	11,410		
11-1011	Chief Executives	6,380	7,340	960	15.0	1,490	4	Bachelor's Or Higher & Some Work Exp.
11-1021	General & Operations Managers	25,810	29,540	3,730	14.5	3,190	4	Bachelor's Or Higher & Some Work Exp.
11-1031	Legislators	100	110	10	10.0	20	4	Bachelor's Or Higher & Some Work Exp.
11-2011	Advertising & Promotions Managers	1,580	2,000	420	26.6	180	4	Bachelor's Or Higher & Some Work Exp.
11-2021	Marketing Managers	3,660	4,540	880	24.0	400	4	Bachelor's Or Higher & Some Work Exp.
11-2022	Sales Managers	5,370	6,860	1,490	27.7	600	4	Bachelor's Or Higher & Some Work Exp.
11-2031	Public Relations Managers	620	790	170	27.4	70	4	Bachelor's Or Higher & Some Work Exp.
11-3011	Administrative Services Managers	3,540	4,170	630	17.8	430	4	Bachelor's Or Higher & Some Work Exp.
11-3021	Computer & Information Systems Managers	4,080	5,460	1,380	33.8	550	4	Bachelor's Or Higher & Some Work Exp.
11-3031	Financial Managers	8,010	9,420	1,410	17.6	920	4	Bachelor's Or Higher & Some Work Exp.
11-3040	Human Resources Managers	3,360	3,640	280	8.3	*		
11-3051	Industrial Production Managers	2,340	2,580	240	10.3	280	5	Bachelor's Degree
11-3061	Purchasing Managers	1,460	1,490	30	2.1	320	4	Bachelor's Or Higher & Some Work Exp.
11-3071	Transportation, Storage, & Distribution Manager	1,070	1,270	200	18.7	130	8	Work Experience
11-9021	Construction Managers	2,620	3,080	460	17.6	320	5	Bachelor's Degree
11-9031	Educ Admins, Preschool & Child Care Center	560	680	120	21.4	110	4	Bachelor's Or Higher & Some Work Exp.
11-9032	Educ Admins, Elementary & Secondary School	1,410	1,600	190	13.5	270	4	Bachelor's Or Higher & Some Work Exp.
11-9033	Education Administrators, Postsecondary	400	440	40	10.0	80	4	Bachelor's Or Higher & Some Work Exp.
11-9041	Engineering Managers	3,860	4,220	360	9.3	450	4	Bachelor's Or Higher & Some Work Exp.
11-9051	Food Service Managers	2,140	2,440	300	14.0	190	8	Work Experience
11-9081	Lodging Managers	160	170	10	6.3	10	8	Work Experience
11-9111	Medical & Health Services Managers	1,570	1,950	380	24.2	210	4	Bachelor's Or Higher & Some Work Exp.
11-9121	Natural Sciences Managers	170	190	20	11.8	20	4	Bachelor's Or Higher & Some Work Exp.

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
11-9141	Property, Real Estate, & Community Assn Mgrs	2,650	3,120	470	17.7	330	5	Bachelor's Degree
11-9151	Social & Community Service Managers	620	730	110	17.7	90	5	Bachelor's Degree
11-9199	Managers, All Other	5,860	6,510	650	11.1	750	8	Work Experience
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>57,890</b>	<b>67,270</b>	<b>9,380</b>	<b>16.2</b>	<b>8,230</b>		
13-1022	Wholesale & Retail Buyers, Except Farm Products	2,170	2,220	50	2.3	470	5	Bachelor's Degree
13-1023	Purch Agents, Ex Wholesale, Retail, & Farm Prod	3,830	4,430	600	15.7	560	5	Bachelor's Degree
13-1031	Claims Adjusters, Examiners, & Investigators	3,320	3,830	510	15.4	280	9	Long-Term On-The-Job-Training
13-1032	Insurance Appraisers, Auto Damage	180	210	30	16.7	20	9	Long-Term On-The-Job-Training
13-1041	Comp Officers, Ex Ag, Const, Hlth & Safety, & Transp	1,590	1,790	200	12.6	300	9	Long-Term On-The-Job-Training
13-1051	Cost Estimators	2,800	3,270	470	16.8	460	5	Bachelor's Degree
13-1071	Employment, Recruitment, & Placement Specialist	2,170	2,480	310	14.3	310	5	Bachelor's Degree
13-1072	Compensation, Benefits, & Job Analysis Specialist	720	820	100	13.9	100	5	Bachelor's Degree
13-1073	Training & Development Specialists	1,690	1,950	260	15.4	240	5	Bachelor's Degree
13-1111	Management Analysts	3,640	4,360	720	19.8	240	4	Bachelor's Or Higher & Some Work Exp.
13-1121	Meeting & Convention Planners	490	590	100	20.4	70	5	Bachelor's Degree
13-1199	Business Operations Specialists, All Other	11,280	13,450	2,170	19.2	2,150	5	Bachelor's Degree
13-2011	Accountants & Auditors	10,370	12,090	1,720	16.6	1,150	5	Bachelor's Degree
13-2021	Appraisers & Assessors of Real Estate	340	400	60	17.6	70	7	Post-Secondary Vocational Education
13-2031	Budget Analysts	470	530	60	12.8	70	5	Bachelor's Degree
13-2041	Credit Analysts	1,200	1,390	190	15.8	180	5	Bachelor's Degree
13-2051	Financial Analysts	2,270	2,710	440	19.4	230	5	Bachelor's Degree
13-2052	Personal Financial Advisors	500	640	140	28.0	50	5	Bachelor's Degree
13-2053	Insurance Underwriters	1,790	1,930	140	7.8	200	5	Bachelor's Degree
13-2061	Financial Examiners	300	340	40	13.3	40	5	Bachelor's Degree
13-2071	Loan Counselors	260	300	40	15.4	40	5	Bachelor's Degree
13-2072	Loan Officers	3,280	3,590	310	9.5	470	5	Bachelor's Degree
13-2081	Tax Examiners, Collectors, & Revenue Agents	560	620	60	10.7	110	5	Bachelor's Degree
13-2082	Tax Preparers	790	900	110	13.9	120	10	Moderate-Term On-The-Job Training
13-2099	Financial Specialists, All Other	1,880	2,430	550	29.3	300	5	Bachelor's Degree

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
<b>15-0000</b>	<b>Computer &amp; Mathematical Science Occupations</b>	<b>36,180</b>	<b>50,070</b>	<b>13,890</b>	<b>38.4</b>	<b>34,140</b>	<b>2,620</b>	
15-29-0000	<b>Professional &amp; Related Occupations</b>	<b>237,040</b>	<b>286,790</b>	<b>49,750</b>	<b>21.0</b>			
15-1001	Computer & Information Scientists, Research	380	450	70	18.4	20	2	Doctoral Degree
15-1021	Computer Programmers	7,080	7,550	470	6.6	1,060	5	Bachelor's Degree
15-1031	Computer Software Engineers, Applications	6,700	9,950	3,250	48.5	370	5	Bachelor's Degree
15-1032	Computer Software Engineers, Systems Software	3,000	4,510	1,510	50.3	170	5	Bachelor's Degree
15-1041	Computer Support Specialists	5,300	8,440	3,140	59.2	190	6	Associate Degree
15-1051	Computer Systems Analysts	4,640	6,270	1,630	35.1	320	5	Bachelor's Degree
15-1061	Database Administrators	1,570	2,160	590	37.6	50	5	Bachelor's Degree
15-1071	Network & Computer Systems Administrators	3,620	5,460	1,840	50.8	130	5	Bachelor's Degree
15-1081	Network Systems & Data Communications Analysts	1,380	2,000	620	44.9	50	5	Bachelor's Degree
15-1099	Computer Specialists, All Other	1,830	2,570	740	40.4	130	7	Post-Secondary Vocational Education
15-2031	Operations Research Analysts	450	460	10	2.2	100	3	Master's Degree
15-2041	Statisticians	110	120	10	9.1	10	3	Master's Degree
15-2099	Mathematical Science Occupations, All Other	120	130	10	8.3	20	3	Master's Degree
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>38,570</b>	<b>44,150</b>	<b>5,580</b>	<b>14.5</b>	<b>5,940</b>		
17-1011	Architects, Except Landscape & Naval	1,160	1,370	210	18.1	50	5	Bachelor's Degree
17-1012	Landscape Architects	110	130	20	18.2	10	5	Bachelor's Degree
17-1022	Surveyors	580	630	50	8.6	130	5	Bachelor's Degree
17-1099	Architects, Surveyors, & Cartographers, All Other	280	330	50	17.9	10	5	Bachelor's Degree
17-2011	Aerospace Engineers	3,460	3,920	460	13.3	770	5	Bachelor's Degree
17-2031	Biomedical Engineers	110	140	30	27.3	20	5	Bachelor's Degree
17-2041	Chemical Engineers	270	310	40	14.8	40	5	Bachelor's Degree
17-2051	Civil Engineers	3,600	4,030	430	11.9	410	5	Bachelor's Degree
17-2061	Computer Hardware Engineers	2,370	2,690	320	13.5	250	5	Bachelor's Degree

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
17-2071	Electrical Engineers	2,470	2,810	340	13.8	330	5	Bachelor's Degree
17-2072	Electronics Engineers, Except Computer	3,820	4,620	800	20.9	530	5	Bachelor's Degree
17-2081	Environmental Engineers	910	1,180	270	29.7	150	5	Bachelor's Degree
17-2111	Health & Safety Engrs, Ex Mining Safety Engrs & Insp	240	280	40	16.7	30	5	Bachelor's Degree
17-2112	Industrial Engineers	1,860	1,960	100	5.4	220	5	Bachelor's Degree
17-2131	Materials Engineers	260	270	10	3.8	40	5	Bachelor's Degree
17-2141	Mechanical Engineers	2,500	2,850	350	14.0	550	5	Bachelor's Degree
17-2199	Engineers, All Other	2,280	2,430	150	6.6	330	5	Bachelor's Degree
17-3011	Architectural & Civil Drafters	1,240	1,500	260	21.0	290	7	Post-Secondary Vocational Education
17-3012	Electrical & Electronics Drafters	430	500	70	16.3	100	7	Post-Secondary Vocational Education
17-3013	Mechanical Drafters	570	630	60	10.5	130	7	Post-Secondary Vocational Education
17-3021	Aerospace Engineering & Operations Technicians	170	170	0	0.0	20	6	Associate Degree
17-3022	Civil Engineering Technicians	1,370	1,590	220	16.1	210	6	Associate Degree
17-3023	Electrical & Electronic Engineering Technicians	3,790	4,200	410	10.8	560	6	Associate Degree
17-3024	Electro-Mechanical Technicians	1,100	1,270	170	15.5	170	6	Associate Degree
17-3025	Environmental Engineering Technicians	130	150	20	15.4	20	6	Associate Degree
17-3026	Industrial Engineering Technicians	750	850	100	13.3	110	6	Associate Degree
17-3027	Mechanical Engineering Technicians	790	940	150	19.0	120	6	Associate Degree
17-3031	Surveying & Mapping Technicians	200	240	40	20.0	50	10	Moderate-Term On-The-Job Training
17-3099	Drafters, Engineering, & Map Technicians, All Other	1,750	2,160	410	23.4	290	6	Associate Degree
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>9,320</b>	<b>11,150</b>	<b>1,830</b>	<b>19.6</b>	<b>2,000</b>		
19-1021	Biochemists & Biophysicists	130	170	40	30.8	40	2	Doctoral Degree
19-1022	Microbiologists	100	120	20	20.0	30	2	Doctoral Degree
19-1042	Medical Scientists, Except Epidemiologists	270	320	50	18.5	50	2	Doctoral Degree
19-1099	Life Scientists, All Other	340	380	40	11.8	70	2	Doctoral Degree
19-2031	Chemists	1,030	1,260	230	22.3	250	5	Bachelor's Degree
19-2032	Materials Scientists	130	170	40	30.8	30	5	Bachelor's Degree
19-2041	Environmental Scientists & Specialists, Incl Health	370	450	80	21.6	90	5	Bachelor's Degree
19-2042	Geoscientists, Except Hydrologists & Geographer	270	330	60	22.2	70	5	Bachelor's Degree
19-2099	Physical Scientists, All Other	660	780	120	18.2	200	5	Bachelor's Degree

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
19-3021	Market Research Analysts	1,800	2,120	320	17.8	300	5	Bachelor's Degree
19-3031	Clinical, Counseling, & School Psychologists	1,000	1,140	140	14.0	170	3	Master's Degree
19-3051	Urban & Regional Planners	230	260	30	13.0	40	3	Master's Degree
19-3099	Social Scientists & Related Workers, All Other	320	390	70	21.9	60	3	Master's Degree
19-4011	Agricultural & Food Science Technicians	200	240	40	20.0	40	6	Associate Degree
19-4021	Biological Technicians	100	130	30	30.0	20	6	Associate Degree
19-4031	Chemical Technicians	640	790	150	23.4	120	6	Associate Degree
19-4041	Geological & Petroleum Technicians	330	410	80	24.2	60	6	Associate Degree
19-4041	Nuclear Technicians	620	770	150	24.2	140	6	Associate Degree
19-4051	Environ Science & Protection Techs, Incl Health	140	160	20	14.3	40	6	Associate Degree
19-4091	Life, Physical, & Social Science Techs, All Other	640	760	120	18.8	180	6	Associate Degree
<b>21-0000</b>	<b>Community &amp; Social Services Occupations</b>	<b>9,330</b>	<b>11,180</b>	<b>1,850</b>	<b>19.8</b>	<b>1,180</b>		
21-1011	Substance Abuse & Behavioral Disorder Counselor	270	310	40	14.8	40	3	Master's Degree
21-1012	Educational, Vocational, & School Counselors	1,360	1,650	290	21.3	210	3	Master's Degree
21-1013	Marriage & Family Therapists	260	310	50	19.2	40	3	Master's Degree
21-1014	Mental Health Counselors	570	610	40	7.0	80	3	Master's Degree
21-1015	Rehabilitation Counselors	130	150	20	15.4	20	3	Master's Degree
21-1021	Child, Family, & School Social Workers	970	1,150	180	18.6	80	5	Bachelor's Degree
21-1022	Medical & Public Health Social Workers	620	760	140	22.6	50	5	Bachelor's Degree
21-1023	Mental Health & Substance Abuse Social Workers	400	510	110	27.5	40	3	Master's Degree
21-1091	Health Educators	140	160	20	14.3	20	3	Master's Degree
21-1093	Social & Human Service Assistants	1,220	1,590	370	30.3	140	10	Moderate-Term On-The-Job Training
21-2011	Clergy	340	410	70	20.6	70	1	First Professional Degree
21-2021	Directors, Religious Activities & Education	1,060	1,270	210	19.8	140	5	Bachelor's Degree
21-9099	Counselors, Social & Religious Workers, All Other	1,910	2,200	290	15.2	240	5	Bachelor's Degree
<b>23-0000</b>	<b>Legal Occupations</b>	<b>9,690</b>	<b>11,390</b>	<b>1,700</b>	<b>17.5</b>	<b>570</b>		
23-1011	Lawyers	4,690	5,560	870	18.6	240	1	First Professional Degree

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
23-1021	Admin Law Judges, Adjudicators, & Hearing Officer	120	130	10	8.3	30	4	Bachelor's Or Higher & Some Work Exp.
23-1023	Judges, Magistrate Judges, & Magistrates	200	210	10	5.0	40	4	Bachelor's Or Higher & Some Work Exp.
23-2011	Paralegals & Legal Assistants	2,460	2,930	470	19.1	110	6	Associate Degree
23-2092	Law Clerks	350	370	20	5.7	20	5	Bachelor's Degree
23-2093	Title Examiners, Abstractors, & Searchers	740	750	10	1.4	50	10	Moderate-Term On-The-Job Training
23-9099	Legal & Related Workers, All Other	1,090	1,390	300	27.5	80	5	Bachelor's Degree
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>73,620</b>	<b>86,160</b>	<b>12,540</b>	<b>17.0</b>	<b>12,150</b>		
25-1011	Business Teachers, Postsecondary	170	210	40	23.5	40	2	Doctoral Degree
25-1021	Computer Science Teachers, Postsecondary	340	430	90	26.5	70	2	Doctoral Degree
25-1022	Mathematical Science Teachers, Postsecondary	190	220	30	15.8	40	2	Doctoral Degree
25-1042	Biological Science Teachers, Postsecondary	110	140	30	27.3	20	2	Doctoral Degree
25-1054	Physics Teachers, Postsecondary	110	130	20	18.2	20	2	Doctoral Degree
25-1071	Health Specialties Teachers, Postsecondary	410	480	70	17.1	80	2	Doctoral Degree
25-1072	Nursing Instructors & Teachers, Postsecondary	140	160	20	14.3	30	3	Master's Degree
25-1121	Art, Drama, & Music Teachers, Postsecondary	170	210	40	23.5	40	2	Doctoral Degree
25-1123	English Lang & Literature Teachers, Postsecondary	200	230	30	15.0	40	2	Doctoral Degree
25-1125	History Teachers, Postsecondary	100	120	20	20.0	20	2	Doctoral Degree
25-1191	Graduate Teaching Assistants	4,600	5,480	880	19.1	960	5	Bachelor's Degree
25-1194	Vocational Education Teachers, Postsecondary	2,080	2,510	430	20.7	440	8	Work Experience
25-1199	Postsecondary Teachers, All Other	6,770	8,220	1,450	21.4	1,410	2	Doctoral Degree
25-2011	Preschool Teachers, Except Special Education	3,490	3,870	380	10.9	310	5	Bachelor's Degree
25-2012	Kindergarten Teachers, Except Special Education	1,410	1,610	200	14.2	130	5	Bachelor's Degree
25-2021	Elementary School Teachers, Except Special Ed	14,610	16,570	1,960	13.4	2,440	5	Bachelor's Degree
25-2022	Mid School Teachers, Ex Special & Vocational Ed	5,820	6,460	640	11.0	960	5	Bachelor's Degree
25-2023	Vocational Education Teachers, Middle School	200	220	20	10.0	30	5	Bachelor's Degree
25-2031	Secondary School Teachers, Ex Special & Voc Ed	6,920	8,120	1,200	17.3	1,590	5	Bachelor's Degree
25-2032	Vocational Education Teachers, Secondary School	720	820	100	13.9	160	5	Bachelor's Degree
25-2041	Special Ed Teachers, Preschl, Kindergarten, & Elm Ed	870	1,130	260	29.9	90	5	Bachelor's Degree

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
25-2042	Special Education Teachers, Middle School	400	490	90	22.5	40	5	Bachelor's Degree
25-2043	Special Education Teachers, Secondary School	470	570	100	21.3	40	5	Bachelor's Degree
25-3011	Adult Literacy, Remedial Ed, & GED Tchers & Trainers	780	910	130	16.7	60	5	Bachelor's Degree
25-3021	Self-Enrichment Education Teachers	1,770	2,150	380	21.5	140	8	Work Experience
25-3999	Teachers, Primary, Secondary, & Adult, All Other	4,240	5,110	870	20.5	320	5	Bachelor's Degree
25-4010	Archivists	110	120	10	9.1	*	3	Master's Degree
25-4021	Librarians	840	920	80	9.5	130	3	Master's Degree
25-4031	Library Technicians	870	1,040	170	19.5	300	11	Short-Term On-The-Job-Training
25-9031	Instructional Coordinators	700	850	150	21.4	80	3	Master's Degree
25-9041	Teacher Assistants	12,130	14,520	2,390	19.7	1,920	11	Short-Term On-The-Job-Training
25-9099	Education, Training, & Library Workers, All Other	1,880	2,140	260	13.8	200	5	Bachelor's Degree
27-0000	Arts, Design, Entertainment, Sports, & Media Occs	16,890	20,690	3,800	22.5	2,270		
27-1011	Art Directors	200	250	50	25.0	30	4	Bachelor's Or Higher & Some Work Exp.
27-1014	Multi-Media Artists & Animators	440	550	110	25.0	70	5	Bachelor's Degree
27-1021	Commercial & Industrial Designers	260	310	50	19.2	20	5	Bachelor's Degree
27-1022	Fashion Designers	150	180	30	20.0	10	5	Bachelor's Degree
27-1023	Floral Designers	320	350	30	9.4	20	10	Moderate-Term On-The-Job Training
27-1024	Graphic Designers	2,720	3,480	760	27.9	210	5	Bachelor's Degree
27-1025	Interior Designers	920	1,140	220	23.9	70	5	Bachelor's Degree
27-1026	Merchandise Displayers & Window Trimmers	780	950	170	21.8	60	10	Moderate-Term On-The-Job Training
27-1027	Set & Exhibit Designers	130	170	40	30.8	10	5	Bachelor's Degree
27-1099	Art & Design Workers, All Other	1,430	1,930	500	35.0	190	5	Bachelor's Degree
27-2011	Actors	110	130	20	18.2	20	9	Long-Term On-The-Job-Training
27-2012	Producers & Directors	410	470	60	14.6	60	4	Bachelor's Or Higher & Some Work Exp.
27-2021	Athletes & Sports Competitors	180	220	40	22.2	30	9	Long-Term On-The-Job-Training
27-2022	Coaches & Scouts	520	610	90	17.3	80	9	Long-Term On-The-Job-Training
27-2031	Dancers	110	130	20	18.2	20	9	Long-Term On-The-Job-Training
27-2041	Music Directors & Composers	690	830	140	20.3	100	4	Bachelor's Or Higher & Some Work Exp.
27-2042	Musicians & Singers	500	600	100	20.0	70	9	Long-Term On-The-Job-Training
27-2099	Entertainers & Performers, Sports & Rel Workers	870	990	120	13.8	130	9	Long-Term On-The-Job-Training

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Percent	Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008				
27-3010	Announcers	140	140	0	0.0	*	*
27-3020	News Analysts, Reporters & Correspondents	130	140	10	7.7	210	5 Bachelor's Degree
27-3031	Public Relations Specialists	1,540	1,990	450	29.2	220	5 Bachelor's Degree
27-3041	Editors	890	1,080	190	21.3	120	5 Bachelor's Degree
27-3042	Technical Writers	530	610	80	15.1	40	5 Bachelor's Degree
27-3043	Writers & Authors	310	380	70	22.6	40	5 Bachelor's Degree
27-3099	Media & Communication Workers, All Other	600	720	120	20.0	90	9 Long-Term On-The-Job-Training
27-4011	Audio & Video Equipment Technicians	310	350	40	12.9	70	9 Long-Term On-The-Job-Training
27-4012	Broadcast Technicians	170	180	10	5.9	40	7 Post-Secondary Vocational Education
27-4013	Radio Operators	190	200	10	5.3	40	9 Long-Term On-The-Job-Training
27-4014	Sound Engineering Technicians	130	150	20	15.4	30	7 Post-Secondary Vocational Education
27-4021	Photographers	810	990	180	22.2	120	9 Long-Term On-The-Job-Training
27-4031	Camera Ops, Television, Video, & Motion Picture	120	140	20	16.7	20	10 Moderate-Term On-The-Job Training
27-4032	Film & Video Editors	130	160	30	23.1	20	5 Bachelor's Degree
27-4099	Media & Communication Equipment Workers, All Other	110	130	20	18.2	40	10 Moderate-Term On-The-Job Training
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>43,440</b>	<b>52,000</b>	<b>8,560</b>	<b>19.7</b>	<b>7,410</b>	
29-1011	Chiropractors	200	220	20	10.0	30	1 First Professional Degree
29-1020	Dentists	460	510	50	10.9	*	5 Bachelor's Degree
29-1031	Dietitians & Nutritionists	260	300	40	15.4	50	1 First Professional Degree
29-1041	Optometrists	120	140	20	16.7	20	1 First Professional Degree
29-1051	Pharmacists	1,590	1,910	320	20.1	370	1 First Professional Degree
29-1062	Family & General Practitioners	370	420	50	13.5	40	1 First Professional Degree
29-1065	Pediatricians, General	190	210	20	10.5	20	1 First Professional Degree
29-1066	Psychiatrists	110	140	30	27.3	10	1 First Professional Degree
29-1071	Physician Assistants	710	920	210	29.6	120	5 Bachelor's Degree
29-1111	Registered Nurses	14,160	17,140	2,980	21.0	2,170	6 Associate Degree
29-1121	Audiologists	110	150	40	36.4	20	3 Master's Degree
29-1122	Occupational Therapists	800	990	190	23.7	160	5 Bachelor's Degree
29-1123	Physical Therapists	1,000	1,210	210	19.0	190	3 Master's Degree

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		BLs Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent		
29-1125	Recreational Therapists	150	160	10	6.7	30	5 Bachelor's Degree
29-1126	Respiratory Therapists	760	1,000	240	31.6	150	6 Associate Degree
29-1127	Speech-Language Pathologists	610	800	190	31.1	120	3 Master's Degree
29-1131	Veterinarians	420	510	90	21.4	60	1 First Professional Degree
29-1199	Health Diagnosing & Treating Practitioners, All Others	630	740	110	17.5	90	1 First Professional Degree
29-2011	Medical & Clinical Laboratory Technologists	1,550	1,850	300	19.4	280	5 Bachelor's Degree
29-2012	Medical & Clinical Laboratory Technicians	1,120	1,290	170	15.2	200	6 Associate Degree
29-2021	Dental Hygienists	1,670	2,100	430	25.7	190	6 Associate Degree
29-2031	Cardiovascular Technologists & Technicians	180	230	50	27.8	30	6 Associate Degree
29-2032	Diagnostic Medical Sonographers	180	210	30	16.7	30	6 Associate Degree
29-2034	Radiologic Technologists & Technicians	1,600	1,870	270	16.9	260	6 Associate Degree
29-2041	Emergency Medical Technicians & Paramedics	1,170	1,370	200	17.1	220	7 Post-Secondary Vocational Education
29-2051	Dietetic Technicians	310	360	50	16.1	60	10 Moderate-Term On-The-Job Training
29-2052	Pharmacy Technicians	1,440	1,860	420	29.2	300	10 Moderate-Term On-The-Job Training
29-2053	Psychiatric Technicians	1,340	1,460	120	9.0	250	7 Post-Secondary Vocational Education
29-2055	Surgical Technologists	610	810	200	32.8	130	7 Post-Secondary Vocational Education
29-2056	Veterinary Technologists & Technicians	700	810	110	15.7	140	6 Associate Degree
29-2061	Licensed Practical & Licensed Vocational Nurses	3,260	3,680	420	12.9	620	7 Post-Secondary Vocational Education
29-2071	Medical Records & Health Information Technician	870	1,110	240	27.6	150	6 Associate Degree
29-2081	Opticians, Dispensing	270	280	10	3.7	40	9 Long-Term On-The-Job-Training
29-2099	Health Technologists & Technicians, All Other	180	220	40	22.2	40	5 Bachelor's Degree
29-9010	Occupational Health & Safety Specialists & Techs	110	130	20	18.2	*	
29-9199	Health Professionals & Technicians, All Other	4,150	4,800	650	15.7	800	6 Associate Degree
31-39-0000	Service Occupations	248,040	290,480	42,440	17.1	65,220	
31-0000	Healthcare Support Occupations	25,590	31,440	5,850	22.9	3,910	
31-1011	Home Health Aides	2,900	3,470	570	19.7	280	11 Short-Term On-The-Job-Training
31-1012	Nursing Aides, Orderlies, & Attendants	7,630	9,210	1,580	20.7	740	11 Short-Term On-The-Job-Training

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
31-1013	Psychiatric Aides	150	180	30	20.0	20	11	Short-Term On-The-Job-Training
31-2011	Occupational Therapist Assistants	140	180	40	28.6	30	6	Associate Degree
31-2021	Physical Therapist Assistants	370	470	100	27.0	90	6	Associate Degree
31-2022	Physical Therapist Aides	370	470	100	27.0	90	11	Short-Term On-The-Job-Training
31-9011	Massage Therapists	170	210	40	23.5	30	7	Post-Secondary Vocational Education
31-9091	Dental Assistants	3,460	4,380	920	26.6	480	10	Moderate-Term On-The-Job Training
31-9092	Medical Assistants	4,690	6,010	1,320	28.1	990	10	Moderate-Term On-The-Job Training
31-9093	Medical Equipment Preparers	200	240	40	20.0	40	11	Short-Term On-The-Job-Training
31-9094	Medical Transcriptionists	610	740	130	21.3	130	7	Post-Secondary Vocational Education
31-9095	Pharmacy Aides	750	910	160	21.3	150	11	Short-Term On-The-Job-Training
31-9096	Veterinary Assistants & Lab Animal Caretakers	790	930	140	17.7	160	11	Short-Term On-The-Job-Training
31-9099	Healthcare Support Workers, All Other	3,360	4,040	680	20.2	680	11	Short-Term On-The-Job-Training
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>25,580</b>	<b>30,710</b>	<b>5,130</b>	<b>20.1</b>	<b>6,050</b>		
33-1012	First-Line Sups/Managers of Police & Detectives	700	760	60	8.6	140	8	Work Experience
33-1021	First-Line Sups/Mgrs of Fire Fighting & Prevent	360	380	20	5.6	80	8	Work Experience
33-1099	First-Line Sups/Mgrs, Protective Serv Wrkrs, All Other	620	760	140	22.6	140	8	Work Experience
33-2011	Fire Fighters	1,100	1,160	60	5.5	200	9	Long-Term On-The-Job-Training
33-3012	Correctional Officers & Jailers	350	420	70	20.0	70	10	Moderate-Term On-The-Job Training
33-3021	Detectors & Criminal Investigators	990	1,120	130	13.1	160	8	Work Experience
33-3051	Police & Sheriff's Patrol Officers	4,210	4,920	710	16.9	660	9	Long-Term On-The-Job-Training
33-3052	Transit & Railroad Police	740	800	60	8.1	120	9	Long-Term On-The-Job-Training
33-9021	Private Detectives & Investigators	280	290	10	3.6	60	8	Work Experience
33-9032	Security Guards	13,550	16,980	3,430	25.3	2,950	11	Short-Term On-The-Job-Training
33-9091	Crossing Guards	330	340	10	3.0	80	11	Short-Term On-The-Job-Training
33-9099	Protective Service Workers, All Other	2,350	2,780	430	18.3	1,390	11	Short-Term On-The-Job-Training
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>111,130</b>	<b>125,460</b>	<b>14,330</b>	<b>12.9</b>	<b>38,470</b>		
35-1011	Chefs & Head Cooks	940	1,010	70	7.4	220	7	Post-Secondary Vocational Education
35-1012	First-Line Sups/Mgrs of Food Prep & Serving Wrk	5,870	6,520	650	11.1	1,100	8	Work Experience

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
35-2011	Cooks, Fast Food	4,550	4,700	150	3.3	960	11	Short-Term On-The-Job-Training
35-2012	Cooks, Institution & Cafeteria	1,750	1,920	170	9.7	380	9	Long-Term On-The-Job-Training
35-2014	Cooks, Restaurant	13,900	16,280	2,380	17.1	3,120	9	Long-Term On-The-Job-Training
35-2015	Cooks, Short Order	860	960	100	11.6	190	11	Short-Term On-The-Job-Training
35-2021	Food Preparation Workers	9,070	10,320	1,250	13.8	2,730	11	Short-Term On-The-Job-Training
35-3011	Bartenders	3,690	4,100	410	11.1	1,070	11	Short-Term On-The-Job-Training
35-3021	Comb Food Prep & Serving Wrks, Incl Fast Food	16,460	20,220	3,760	22.8	8,160	11	Short-Term On-The-Job-Training
35-3022	Counter Attends, Cafe, Food Concess, & Coffee Shop	5,660	6,330	670	11.8	3,560	11	Short-Term On-The-Job-Training
35-3031	Waiters & Waitresses	25,810	29,630	3,820	14.8	11,050	11	Short-Term On-The-Job-Training
35-3041	Food Servers, Nonrestaurant	1,680	1,940	260	15.5	590	11	Short-Term On-The-Job-Training
35-9011	Dining Rm & Cafeteria Attendants & Bartender Helpers	6,650	6,660	10	0.2	1,630	11	Short-Term On-The-Job-Training
35-9021	Dishwashers	8,100	8,110	10	0.1	2,260	11	Short-Term On-The-Job-Training
35-9031	Hosts & Hostess, Restaurant, Lounge, & Coffee Shop	5,000	5,610	610	12.2	1,130	11	Short-Term On-The-Job-Training
35-9099	Food Prep & Serving Related Workers, All Other	1,140	1,150	10	0.9	320	11	Short-Term On-The-Job-Training
37-0000	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occs</b>	<b>54,390</b>	<b>65,390</b>	<b>11,000</b>	<b>20.2</b>	<b>8,750</b>		
37-1011	First-Line Sups/Mgrs of Housekeep & Janitor Wk	1,770	2,080	310	17.5	370	8	Work Experience
37-1012	First-Line Sups/Mgrs of Lndscp, Lwn Serv, & Grn	1,780	1,870	90	5.1	70	8	Work Experience
37-2011	Janitors & Clean, Ex Maids & Housekeep Cleaners	23,130	28,340	5,210	22.5	3,250	11	Short-Term On-The-Job-Training
37-2012	Maids & Housekeeping Cleaners	8,820	10,530	1,710	19.4	1,470	11	Short-Term On-The-Job-Training
37-2021	Pest Control Workers	680	940	260	38.2	120	10	Moderate-Term On-The-Job Training
37-3011	Landscaping & Groundskeeping Workers	16,490	19,670	3,180	19.3	3,190	11	Short-Term On-The-Job-Training
37-3013	Tree Trimmers & Pruners	660	700	40	6.1	120	11	Short-Term On-The-Job-Training
37-9099	Bldng & Grounds Cleaning & Maint Wrks, All Other	1,060	1,260	200	18.9	160	11	Short-Term On-The-Job-Training
39-0000	<b>Personal Care &amp; Service Occupations</b>	<b>31,350</b>	<b>37,480</b>	<b>6,130</b>	<b>19.6</b>	<b>8,040</b>		
39-1011	Gaming Supervisors	800	920	120	15.0	170	7	Post-Secondary Vocational Education
39-1012	Slot Key Persons	270	320	50	18.5	60	7	Post-Secondary Vocational Education
	First-Line Sups/Mgrs of Personal Service Worker	1,050	1,260	210	20.0	230	8	Work Experience

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
39-2021	Nonfarm Animal Caretakers	1,060	1,250	190	17.9	170	11	Short-Term On-The-Job-Training
39-3011	Gaming Dealers	3,440	4,230	790	23.0	960	7	Post-Secondary Vocational Education
39-3012	Gaming & Sports Book Writers & Runners	210	220	10	4.8	50	7	Post-Secondary Vocational Education
39-3031	Ushers, Lobby Attendants, & Ticket Takers	2,840	3,260	420	14.8	1,850	11	Short-Term On-The-Job-Training
39-3091	Amusement & Recreation Attendants	3,790	4,600	810	21.4	1,030	11	Short-Term On-The-Job-Training
39-3093	Locker Room, Coatroom, & Dressing Room Attend	200	220	20	10.0	50	11	Short-Term On-The-Job-Training
39-3099	Entertainment Attendants & Rel Workers, All Other	170	170	0	0.0	20	11	Short-Term On-The-Job-Training
39-3199	Gaming Workers, All Other	480	560	80	16.7	130	10	Moderate-Term On-The-Job Training
39-5012	Hairdressers, Hairstylists, & Cosmetologists	2,410	2,750	340	14.1	440	7	Post-Secondary Vocational Education
39-5092	Manicurists & Pedicurists	1,090	1,420	330	30.3	210	7	Post-Secondary Vocational Education
39-5093	Shampooers	100	120	20	20.0	20	11	Short-Term On-The-Job-Training
39-5094	Skin Care Specialists	120	150	30	25.0	20	7	Post-Secondary Vocational Education
39-6011	Baggage Porters & Bellhops	960	1,070	110	11.5	260	11	Short-Term On-The-Job-Training
39-6012	Concierges	230	270	40	17.4	60	8	Work Experience
39-6021	Tour Guides & Escorts	150	160	10	6.7	40	10	Moderate-Term On-The-Job Training
39-6031	Flight Attendants	350	380	30	8.6	90	9	Long-Term On-The-Job-Training
39-6032	Trans Attendants, Ex Flight Attendants & Bag Potter	130	160	30	23.1	40	11	Short-Term On-The-Job-Training
39-9011	Child Care Workers	2,440	3,000	560	23.0	660	11	Short-Term On-The-Job-Training
39-9021	Personal & Home Care Aides	1,770	2,230	460	26.0	210	11	Short-Term On-The-Job-Training
39-9031	Fitness Trainers & Aerobics Instructors	3,080	3,860	780	25.3	500	7	Post-Secondary Vocational Education
39-9032	Recreation Workers	2,390	2,760	370	15.5	370	5	Bachelor's Degree
39-9041	Residential Advisors	130	150	20	15.4	20	10	Moderate-Term On-The-Job Training
39-9099	Personal Care & Service Workers, All Other	1,690	1,990	300	17.8	380	11	Short-Term On-The-Job-Training
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>166,740</b>	<b>191,370</b>	<b>24,630</b>	<b>14.8</b>	<b>40,960</b>		
41-1011	First-Line Sups/Mgrs of Retail Sales Workers	12,300	14,030	1,730	14.1	1,310	8	Work Experience
41-1012	First-Line Sups/Mgrs of Non-Retail Sales Worker	4,290	4,740	450	10.5	460	8	Work Experience
41-2011	Cashiers	33,270	37,850	4,580	13.8	11,840	11	Short-Term On-The-Job-Training
41-2012	Gaming Change Persons & Booth Cashiers	770	970	200	26.0	290	11	Short-Term On-The-Job-Training
41-2021	Counter & Rental Clerks	5,610	6,700	1,090	19.4	2,020	11	Short-Term On-The-Job-Training

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
41-2022	Parts Salespersons	1,660	1,670	10	0.6	350	10	Moderate-Term On-The-Job Training
41-2031	Retail Salespersons	44,760	51,250	6,490	14.5	13,110	11	Short-Term On-The-Job-Training
41-3011	Advertising Sales Agents	2,070	2,530	460	22.2	320	10	Moderate-Term On-The-Job Training
41-3021	Insurance Sales Agents	3,380	3,670	290	8.6	630	5	Bachelor's Degree
41-3031	Securities, Commodities, & Financial Serv Sales	2,930	3,490	560	19.1	180	5	Bachelor's Degree
41-3041	Travel Agents	1,370	1,500	130	9.5	240	7	Post-Secondary Vocational Education
41-4011	Sales Reps., Wholesale & Mfg., Tech & Scientific Prod	6,340	6,950	610	9.6	1,260	10	Moderate-Term On-The-Job Training
41-4012	Sales Reps., Wholesale & Mfg., Ex Tech & Scientific	23,150	25,860	2,710	11.7	4,640	10	Moderate-Term On-The-Job Training
41-9011	Demonstrators & Product Promoters	2,280	2,840	560	24.6	580	10	Moderate-Term On-The-Job Training
41-9012	Models	210	280	70	33.3	60	10	Moderate-Term On-The-Job Training
41-9021	Real Estate Brokers	500	570	70	14.0	60	8	Work Experience
41-9022	Real Estate Sales Agents	1,670	1,970	300	18.0	220	7	Post-Secondary Vocational Education
41-9031	Sales Engineers	2,010	2,330	320	15.9	390	5	Bachelor's Degree
41-9041	Telemarketers	5,680	6,540	860	15.1	880	11	Short-Term On-The-Job-Training
41-9091	Dr-to-Dr Sales Wrkrs, Nws & St Vndrs, & Rel Wrk	170	180	10	5.9	30	11	Short-Term On-The-Job-Training
41-9099	Sales & Related Workers, All Other	12,320	15,450	3,130	25.4	2,090	10	Moderate-Term On-The-Job Training
<b>43-0000</b>		<b>277,050</b>	<b>305,000</b>	<b>27,950</b>	<b>10.1</b>	<b>42,560</b>		
<b>Office &amp; Administrative Support Occupations</b>								
43-1011	First-Line Sups/Mgrs of Office & Admin Support	16,600	18,340	1,740	10.5	2,320	8	Work Experience
43-2011	Switchboard Operators, Including Answering Service	2,780	2,550	-230	-8.3	550	11	Short-Term On-The-Job-Training
43-2021	Telephone Operators	1,000	740	-260	-26.0	180	11	Short-Term On-The-Job-Training
43-2099	Communications Equipment Operators, All Other	120	110	-10	-8.3	30	11	Short-Term On-The-Job-Training
43-3011	Bill & Account Collectors	4,830	5,580	750	15.5	900	11	Short-Term On-The-Job-Training
43-3021	Billing & Posting Clerks & Machine Operators	6,230	6,670	440	7.1	1,100	11	Short-Term On-The-Job-Training
43-3031	Bookkeeping, Accounting, & Auditing Clerks	17,840	19,130	1,290	7.2	2,440	10	Moderate-Term On-The-Job Training
43-3041	Gaming Cage Workers	310	360	50	16.1	110	11	Short-Term On-The-Job-Training
43-3051	Payroll & Timekeeping Clerks	4,010	4,500	490	12.2	860	11	Short-Term On-The-Job-Training
43-3061	Procurement Clerks	680	670	-10	-1.5	110	11	Short-Term On-The-Job-Training
43-3071	Tellers	5,760	5,970	210	3.6	2,010	11	Short-Term On-The-Job-Training
43-4011	Brokerage Clerks	1,300	1,330	30	2.3	120	10	Moderate-Term On-The-Job Training
43-4021	Correspondence Clerks	390	420	30	7.7	90	11	Short-Term On-The-Job-Training
43-4031	Court, Municipal, & License Clerks	440	470	30	6.8	50	11	Short-Term On-The-Job-Training

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
43-4041	Credit Authorizers, Checkers, & Clerks	1,320	1,440	120	9.1	90	11	Short-Term On-The-Job-Training
43-4051	Customer Service Representatives	23,190	29,020	5,830	25.1	1,510	10	Moderate-Term On-The-Job Training
43-4061	Eligibility Interviewers, Government Programs	1,850	1,720	-130	-7.0	360	10	Moderate-Term On-The-Job Training
43-4071	File Clerks	4,930	5,180	250	5.1	1,140	11	Short-Term On-The-Job-Training
43-4081	Hotel, Motel, & Resort Desk Clerks	2,100	2,650	550	26.2	740	11	Short-Term On-The-Job-Training
43-4111	Interviewers, Except Eligibility & Loan	1,300	1,610	310	23.8	220	11	Short-Term On-The-Job-Training
43-4121	Library Assistants, Clerical	770	880	110	14.3	260	11	Short-Term On-The-Job-Training
43-4131	Loan Interviewers & Clerks	3,520	3,270	-250	-7.1	160	11	Short-Term On-The-Job-Training
43-4141	New Accounts Clerks	1,470	1,700	230	15.6	240	8	Work Experience
43-4151	Order Clerks	8,620	8,030	-590	-6.8	1,220	11	Short-Term On-The-Job-Training
43-4161	Human Resources Assist., Ex Pay & Timekeeping	1,910	2,240	330	17.3	330	11	Short-Term On-The-Job-Training
43-4171	Receptionists & Information Clerks	15,170	17,630	2,460	16.2	2,550	11	Short-Term On-The-Job-Training
43-4181	Reservation & Trans Ticket Agents & Travel Clerk	1,150	1,420	270	23.5	250	11	Short-Term On-The-Job-Training
43-4999	Financial, Information, & Record Clerks, All Other	2,680	3,170	490	18.3	270	11	Short-Term On-The-Job-Training
43-5011	Cargo & Freight Agents	420	430	10	2.4	60	10	Moderate-Term On-The-Job Training
43-5021	Couriers & Messengers	2,320	2,310	-10	-0.4	450	11	Short-Term On-The-Job-Training
43-5031	Police, Fire, & Ambulance Dispatchers	310	340	30	9.7	40	10	Moderate-Term On-The-Job Training
43-5032	Dispatchers, Except Police, Fire, & Ambulance	1,720	2,010	290	16.9	210	10	Moderate-Term On-The-Job Training
43-5041	Meter Readers, Utilities	210	180	-30	-14.3	30	11	Short-Term On-The-Job-Training
43-5051	Postal Service Clerks	470	480	10	2.1	70	11	Short-Term On-The-Job-Training
43-5052	Postal Service Mail Carriers	3,280	3,370	90	2.7	700	11	Short-Term On-The-Job-Training
43-5053	Postal Serv Mail Sort, Processors, & Processing	1,300	1,340	40	3.1	200	11	Short-Term On-The-Job-Training
43-5061	Production, Planning, & Expediting Clerks	3,780	4,330	550	14.6	470	11	Short-Term On-The-Job-Training
43-5071	Shipping, Receiving, & Traffic Clerks	13,950	15,670	1,720	12.3	2,080	11	Short-Term On-The-Job-Training
43-5081	Stock Clerks & Order Fillers	17,490	19,510	2,020	11.5	4,880	11	Short-Term On-The-Job-Training
43-5111	Weigh, Measure, Check, & Sample, Recordkeeping	1,020	1,150	130	12.7	190	11	Short-Term On-The-Job-Training
43-6011	Executive Secretaries & Administrative Assistant	17,200	19,060	1,860	10.8	2,120	10	Moderate-Term On-The-Job Training
43-6012	Legal Secretaries	1,890	2,090	200	10.6	230	7	Post-Secondary Vocational Education
43-6013	Medical Secretaries	3,320	3,660	340	10.2	410	7	Post-Secondary Vocational Education
43-6014	Secretaries, Except Legal, Medical, & Executive	18,500	19,330	830	4.5	2,210	10	Moderate-Term On-The-Job Training
43-9011	Computer Operators	2,300	2,100	-200	-8.7	270	10	Moderate-Term On-The-Job Training
43-9021	Data Entry Keyers	5,700	5,840	140	2.5	630	10	Moderate-Term On-The-Job Training
43-9022	Word Processors & Typists	1,990	1,800	-190	-9.5	270	10	Moderate-Term On-The-Job Training
43-9031	Desktop Publishers	360	560	200	55.6	60	7	Post-Secondary Vocational Education

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Percent	Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008				
43-9041	Insurance Claims & Policy Processing Clerks	2,810	2,500	-11.0	310	10	Moderate-Term On-The-Job Training
	Mail Clerks & Mail Mach Ops, Ex Postal Service	1,920	2,160	12.5	420	11	Short-Term On-The-Job-Training
43-9051	Office Clerks, General	33,940	38,740	4,800	14.1	4,900	11
43-9061	Office Machine Operators, Except Computer	910	860	-50	-5.5	220	11
43-9071	Proofreaders & Copy Markers	280	290	10	3.6	70	11
43-9081	Statistical Assistants	130	140	10	7.7	10	Moderate-Term On-The-Job Training
43-9111	Office & Administrative Support Workers, All Other	7,260	7,950	690	9.5	840	Moderate-Term On-The-Job Training
43-9199							
45-00000	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>830</b>	<b>950</b>	<b>120</b>	<b>14.5</b>	<b>110</b>	
	Graders & Sorters, Agricultural Products	120	140	20	16.7	20	8 Work Experience
45-2041	Farmwrks & Labor, Crop, Nursery, & Greenhouse	250	300	50	20.0	30	11 Short-Term On-The-Job-Training
45-2092	Agricultural Workers, All Other	140	150	10	7.1	20	11 Short-Term On-The-Job-Training
45-2099	Forest & Conservation Workers	110	120	10	9.1	20	10 Moderate-Term On-The-Job Training
45-4011	Farming, Fishing, & Forestry Workers, All Other	210	240	30	14.3	20	10 Moderate-Term On-The-Job Training
45-9099							
47-00000	<b>Construction &amp; Extraction Occupations</b>	<b>69,670</b>	<b>81,270</b>	<b>11,600</b>	<b>16.6</b>	<b>10,040</b>	
	First-Line Sups/Mgrs of Construction Trades	4,570	5,280	710	15.5	780	8 Work Experience
47-1011	Boilermakers	120	130	10	8.3	20	9 Long-Term On-The-Job-Training
47-2011	Brickmasons & Blockmasons	1,720	2,030	310	18.0	240	9 Long-Term On-The-Job-Training
47-2021	Stonemasons	240	290	50	20.8	30	9 Long-Term On-The-Job-Training
47-2022	Carpenters	9,850	11,280	1,430	14.5	1,240	9 Long-Term On-The-Job-Training
47-2031	Carpet Installers	770	850	80	10.4	100	10 Moderate-Term On-The-Job Training
47-2041	Tile & Marble Setters	1,460	1,700	240	16.4	180	9 Long-Term On-The-Job-Training
47-2044	Cement Masons & Concrete Finishers	1,920	2,100	180	9.4	120	9 Long-Term On-The-Job-Training
47-2051	Terrazzo Workers & Finishers	190	200	10	5.3	10	9 Long-Term On-The-Job-Training
47-2053	Construction Laborers	9,500	11,120	1,620	17.1	650	10 Moderate-Term On-The-Job Training
47-2061	Paving, Surfacing, & Tamping Equipment Operator	390	450	60	15.4	60	10 Moderate-Term On-The-Job Training
47-2071	Operating Engineers & Oth Const Equipment Ops	1,940	2,160	220	11.3	310	10 Moderate-Term On-The-Job Training
47-2073							

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
47-2081	Drywall & Ceiling Tile Installers	3,700	4,350	650	17.6	270	10	Moderate-Term On-The-Job Training
47-2082	Tapers	1,290	1,500	210	16.3	90	10	Moderate-Term On-The-Job Training
47-2111	Electricians	6,390	7,760	1,370	21.4	910	9	Long-Term On-The-Job-Training
47-2121	Glaziers	460	530	70	15.2	60	9	Long-Term On-The-Job-Training
47-2130	Insulation Workers	350	380	30	8.6	*		
47-2141	Painters, Construction & Maintenance	3,600	4,200	600	16.7	480	10	Moderate-Term On-The-Job Training
47-2151	Pipelayers	130	150	20	15.4	20	10	Moderate-Term On-The-Job Training
47-2152	Plumbers, Pipefitters, & Steamfitters	5,340	6,120	780	14.6	650	9	Long-Term On-The-Job-Training
47-2161	Plasterers & Stucco Masons	2,190	2,560	370	16.9	310	9	Long-Term On-The-Job-Training
47-2171	Reinforcing Iron & Rebar Workers	380	440	60	15.8	30	9	Long-Term On-The-Job-Training
47-2181	Roofers	1,570	1,830	260	16.6	270	10	Moderate-Term On-The-Job Training
47-2211	Sheet Metal Workers	2,110	2,580	470	22.3	340	10	Moderate-Term On-The-Job Training
47-2221	Structural Iron & Steel Workers	660	770	110	16.7	50	9	Long-Term On-The-Job-Training
47-3011	Helpers--Brick, Block, Stonemasons, & Tile & Marble Helpers--Carpenters	680	790	110	16.2	260	11	Short-Term On-The-Job-Training
47-3012	Helpers--Electricians	1,020	1,150	130	12.7	380	11	Short-Term On-The-Job-Training
47-3013	Helpers--Paint, Paperhanger, Plaster, & Stucco	1,220	1,440	220	18.0	460	11	Short-Term On-The-Job-Training
47-3014	Helpers--Plumber, Plumber, Pipefitter, & Steamfitter	770	920	150	19.5	290	11	Short-Term On-The-Job-Training
47-3015	Helpers--Pipelayer, Plumber, Pipefitter, & Steamfitter	580	680	100	17.2	220	11	Short-Term On-The-Job-Training
47-3016	Helpers--Roofers	210	250	40	19.0	80	11	Short-Term On-The-Job-Training
47-3019	Helpers, Construction Trades, All Other	680	860	180	26.5	270	11	Short-Term On-The-Job-Training
47-4011	Construction & Building Inspectors	530	590	60	11.3	90	8	Work Experience
47-4041	Hazardous Materials Removal Workers	1,100	1,350	250	22.7	260	10	Moderate-Term On-The-Job Training
47-4051	Highway Maintenance Workers	580	700	120	20.7	70	10	Moderate-Term On-The-Job Training
47-4099	Construction & Related Workers, All Other	1,220	1,500	280	23.0	390	10	Moderate-Term On-The-Job Training
47-5081	Helpers--Extraction Workers	130	150	20	15.4	40	11	Short-Term On-The-Job-Training
47-5099	Extraction Workers, All Other	110	130	20	18.2	10	10	Moderate-Term On-The-Job Training
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>45,490</b>	<b>51,570</b>	<b>6,080</b>	<b>13.4</b>	<b>7,190</b>		
49-1011	First-Line Sups/Mgrs of Mechanics, Installer	3,430	4,040	610	17.8	670	8	Work Experience
49-2011	Computer, Automated Teller, & Office Mach Repair	1,440	1,570	130	9.0	110	7	Post-Secondary Vocational Education
49-2022	Telecomm Equip Install & Repair, Ex Line Installers	3,620	3,570	-50	-1.4	460	7	Post-Secondary Vocational Education

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change		Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008	Number	Percent			
49-2092	Electric Motor, Power Tool, & Related Repairers	150	170	20	13.3	30	7	Post-Secondary Vocational Education
49-2093	Electrical & Electronics Install & Repair, Tran	160	190	30	18.8	20	7	Post-Secondary Vocational Education
49-2094	Electrical & Electronics Repair, Comm & Industry	1,370	1,580	210	15.3	210	7	Post-Secondary Vocational Education
49-2095	Electrical & Electronics Repair, Powerhse, Subs	190	220	30	15.8	30	7	Post-Secondary Vocational Education
49-2096	Electronic Equip Install & Repair, Motor Vehicle	480	550	70	14.6	80	7	Post-Secondary Vocational Education
49-2097	Electronic Home Entertainment Equip Install	280	240	-40	-14.3	30	7	Post-Secondary Vocational Education
49-2098	Security & Fire Alarm Systems Installers	1,090	1,400	310	28.4	160	7	Post-Secondary Vocational Education
49-2099	Electrical & Electronic Equip Mechs, Install,	400	460	60	15.0	70	7	Post-Secondary Vocational Education
49-3011	Aircraft Mechanics & Service Technicians	290	320	30	10.3	50	7	Post-Secondary Vocational Education
49-3021	Automotive Body & Related Repairers	1,690	1,930	240	14.2	310	9	Long-Term On-The-Job-Training
49-3023	Automotive Service Technicians & Mechanics	5,910	6,840	930	15.7	1,050	7	Post-Secondary Vocational Education
49-3031	Bus & Truck Mechs & Diesel Engine Specialists	1,310	1,490	180	13.7	250	7	Post-Secondary Vocational Education
49-3041	Farm Equipment Mechanics	140	150	10	7.1	30	7	Post-Secondary Vocational Education
49-3042	Mobile Heavy Equip Mechanics, Except Engines	390	470	80	20.5	80	7	Post-Secondary Vocational Education
49-3051	Motorboat Mechanics	140	150	10	7.1	30	9	Long-Term On-The-Job-Training
49-3052	Motorcycle Mechanics	180	190	10	5.6	30	9	Long-Term On-The-Job-Training
49-3053	Outdoor Power Equip & Other Small Eng Mechanic	520	570	50	9.6	100	10	Moderate-Term On-The-Job Training
49-3093	Tire Repairers & Changers	520	550	30	5.8	150	11	Short-Term On-The-Job-Training
49-9012	Control & Valve Installers & Repairers, Ex Mech	280	320	40	14.3	70	10	Moderate-Term On-The-Job Training
49-9021	Heating, Air Conditioning, & Refrigeration Mech	1,540	1,900	360	23.4	120	9	Long-Term On-The-Job-Training
49-9031	Home Appliance Repairers	140	170	30	21.4	20	9	Long-Term On-The-Job-Training
49-9041	Industrial Machinery Mechanics	840	950	110	13.1	170	9	Long-Term On-The-Job-Training
49-9042	Maintenance & Repair Workers, General	10,470	11,500	1,030	9.8	980	9	Long-Term On-The-Job-Training
49-9043	Maintenance Workers, Machinery	700	760	60	8.6	140	9	Long-Term On-The-Job-Training
49-9052	Telecommunications Line Installers & Repairers	1,480	1,700	220	14.9	210	9	Long-Term On-The-Job-Training
49-9062	Medical Equipment Repairers	1,050	1,340	290	27.6	210	10	Moderate-Term On-The-Job Training
49-9091	Coin, Vend, & Amusement Mach Services & Repair	290	350	60	20.7	50	10	Moderate-Term On-The-Job Training
49-9094	Locksmiths & Safe Repairers	230	260	30	13.0	60	10	Moderate-Term On-The-Job Training
49-9098	Helpers--Installation, Maint, & Repair Workers	1,800	2,110	310	17.2	700	11	Short-Term On-The-Job-Training
49-9099	Installation, Maint, & Repair Workers, All Other	2,970	3,560	590	19.9	510	9	Long-Term On-The-Job-Training

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Percent	Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008				
51-0000	Production Occupations	142,060	157,250	15,190	10.7	23,180	
51-1011	First-Line Sups/Mgrs of Prod & Operating Wrkrs	8,340	9,020	680	8.2	1,590	8 Work Experience
51-2011	Aircraft Struct, Surfaces, Rigging, & Systems	340	390	50	14.7	70	9 Long-Term On-The-Job-Training
51-2021	Coil Winders, Tapers, & Finishers	730	840	110	15.1	140	11 Short-Term On-The-Job-Training
51-2022	Electrical & Electronic Equipment Assemblers	6,360	6,490	130	2.0	1,140	11 Short-Term On-The-Job-Training
51-2023	Electromechanical Equipment Assemblers	1,460	1,610	150	10.3	270	11 Short-Term On-The-Job-Training
51-2031	Engine & Other Machine Assemblers	130	140	10	7.7	20	11 Short-Term On-The-Job-Training
51-2041	Structural Metal Fabricators & Fitters	510	610	100	19.6	60	10 Moderate-Term On-The-Job Training
51-2091	Fiberglass Laminators & Fabricators	270	310	40	14.8	40	10 Moderate-Term On-The-Job Training
51-2092	Team Assemblers	18,610	20,460	1,850	9.9	2,360	10 Moderate-Term On-The-Job Training
51-2093	Timing Device Assemblers, Adjusters, & Calibrat	220	250	30	13.6	30	10 Moderate-Term On-The-Job Training
51-2099	Assemblers & Fabricators, All Other	3,620	4,280	660	18.2	480	10 Moderate-Term On-The-Job Training
51-3011	Bakers	1,530	1,740	210	13.7	180	9 Long-Term On-The-Job-Training
51-3021	Butchers & Meat Cutters	1,540	1,460	-80	-5.2	260	9 Long-Term On-The-Job-Training
51-3022	Meat, Poultry, & Fish Cutters & Trimmers	410	450	40	9.8	70	11 Short-Term On-The-Job-Training
51-3091	Food & Tobac Roast, Bake, & Dry Mach Ops & Tend	170	190	20	11.8	30	11 Short-Term On-The-Job-Training
51-3092	Food Batchmakers	620	690	70	11.3	110	11 Short-Term On-The-Job-Training
51-3093	Food Cooking Machine Operators & Tenders	110	130	20	18.2	20	11 Short-Term On-The-Job-Training
51-3099	Food Processing Workers, All Other	410	380	-30	-7.3	70	11 Short-Term On-The-Job-Training
51-4011	Comp-Controlled Mach Tool Ops, Metal & Plastic	2,450	2,840	390	15.9	660	9 Long-Term On-The-Job-Training
51-4012	Numerical Tool & Process Control Programmers	500	580	80	16.0	140	9 Long-Term On-The-Job-Training
51-4021	Extrud & Draw Mach Setters, Ops, & Tends, Metal	1,050	1,160	110	10.5	170	10 Moderate-Term On-The-Job Training
51-4022	Forging Mach Setters, Ops, & Tends, Metal & Plastic	420	440	20	4.8	100	10 Moderate-Term On-The-Job Training
51-4023	Rolling Mach Setters, Ops, & Tends, Metal & Plastic	700	770	70	10.0	170	10 Moderate-Term On-The-Job Training
51-4031	Cutting, Punching, & Press Machine Setters, Ops	2,500	2,490	-10	-0.4	340	10 Moderate-Term On-The-Job Training
51-4032	Drill & Bore Mach Tool Set, Ops, & Tend, Metal	890	880	-10	-1.1	200	10 Moderate-Term On-The-Job Training
51-4033	Grind, Lap, Polish, & Buff Mach Tool Set, Ops,	2,130	2,300	170	8.0	380	10 Moderate-Term On-The-Job Training
51-4034	Lathe & Turn Mach Tool Set, Ops, & Tend, Metl & Plastic	980	960	-20	-2.0	270	10 Moderate-Term On-The-Job Training
51-4035	Mill & Plan Mach Set, Ops, & Tend, Metal & Plastic	580	580	0	0.0	130	10 Moderate-Term On-The-Job Training

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Percent	Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008				
51-4041	Machinists	6,440	7,170	730	11.3	970	9 Long-Term On-The-Job-Training
51-4051	Metal-Refining Furnace Operators & Tenders	150	170	20	13.3	30	10 Moderate-Term On-The-Job Training
51-4071	Foundry Mold & Coremakers	100	100	0	0.0	10	10 Moderate-Term On-The-Job Training
51-4072	Mold, Core, & Cast Mach, Set, Ops & Tend, Metal	1,490	1,600	110	7.4	220	10 Moderate-Term On-The-Job Training
51-4081	Mult MachTool Set, Ops, & Tend,Metal & Plastic	1,210	1,430	220	18.2	140	10 Moderate-Term On-The-Job Training
51-4111	Tool & Die Makers	1,200	1,290	90	7.5	220	9 Long-Term On-The-Job-Training
51-4121	Weilders, Cutters, Solderers, & Brazers	2,840	3,420	580	20.4	610	7 Post-Secondary Vocational Education
51-4122	Weld, Solder, & Braze Mach Setters, Ops, & Tend	470	550	80	17.0	100	10 Moderate-Term On-The-Job Training
51-4191	Heat Treat Equip Set, Ops, & Tend, Metal & Plastic	470	540	70	14.9	70	10 Moderate-Term On-The-Job Training
51-4192	Lay-Out Workers, Metal & Plastic	250	250	0	0.0	50	10 Moderate-Term On-The-Job Training
51-4193	Plate & Coat Mach Set, Ops, & Tend, Metal & Plastic	1,170	1,210	40	3.4	170	10 Moderate-Term On-The-Job Training
51-4194	Tool Grinders, Filers, & Sharpeners	340	350	10	2.9	60	10 Moderate-Term On-The-Job Training
51-4199	Metal Workers & Plastic Workers, All Other	1,400	1,650	250	17.9	210	10 Moderate-Term On-The-Job Training
51-5011	Bindery Workers	1,120	1,290	170	15.2	220	10 Moderate-Term On-The-Job Training
51-5021	Job Printers	1,230	1,420	190	15.4	230	9 Long-Term On-The-Job-Training
51-5022	Prepress Technicians & Workers	1,230	1,210	-20	-1.6	210	9 Long-Term On-The-Job-Training
51-5023	Printing Machine Operators	2,680	3,070	390	14.6	510	10 Moderate-Term On-The-Job Training
51-5099	Printing Workers, All Other	190	230	40	21.1	40	10 Moderate-Term On-The-Job Training
51-6011	Laundry & Dry-Cleaning Workers	1,960	2,380	420	21.4	400	10 Moderate-Term On-The-Job Training
51-6021	Pressers, Textile, Garment, & Related Materials	1,240	1,500	260	21.0	130	11 Short-Term On-The-Job-Training
51-6031	Sewing Machine Operators	8,000	8,760	760	9.5	610	10 Moderate-Term On-The-Job Training
51-6041	Shoe & Leather Workers & Repairers	160	180	20	12.5	50	9 Long-Term On-The-Job-Training
51-6051	Sewers, Hand	530	610	80	15.1	90	11 Short-Term On-The-Job-Training
51-6052	Tailors, Dressmakers, & Custom Sewers	250	260	10	4.0	40	8 Work Experience
51-6061	Textile Bleaching & Dyeing Mach Ops & Tenders	1,620	1,830	210	13.0	240	10 Moderate-Term On-The-Job Training
51-6062	Textile Cutting Machine Setters, Ops, & Tenders	1,900	2,220	320	16.8	250	10 Moderate-Term On-The-Job Training
51-6063	Textile Knit & Weave Mach Setters, Ops & Tender	840	920	80	9.5	100	9 Long-Term On-The-Job-Training
51-6064	Textile Wind, Twist, & Draw Out Mach Set, Ops	630	690	60	9.5	100	10 Moderate-Term On-The-Job Training
51-6091	Extrude & Form Mach Setters, Ops, & Tenders	110	130	20	18.2	20	10 Moderate-Term On-The-Job Training
51-6092	Fabric & Apparel Patternmakers	570	660	90	15.8	140	9 Long-Term On-The-Job-Training
51-6093	Upholsterers	720	650	-70	-9.7	160	9 Long-Term On-The-Job-Training
51-6099	Textile, Apparel, & Furnishings Workers, All Others	1,540	1,880	340	22.1	240	10 Moderate-Term On-The-Job Training

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Percent	Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008				
51-7011	Cabinetmakers & Bench Carpenters	1,820	2,000	180	9.9	430	9
51-7021	Furniture Finishers	390	460	70	17.9	120	9
51-7041	Sawing Mach Setters, Ops. & Tenders, Wood	290	330	40	13.8	90	10
51-7042	Woodwork Mach Setters, Ops. & Tenders, Ex Sawing	1,040	1,090	50	4.8	310	10
51-7099	Woodworkers, All Other	180	210	30	16.7	60	10
51-8021	Stationary Engineers & Boiler Operators	460	480	20	4.3	90	9
51-8031	Water & Liquid Waste Treat Plant & System Ops	270	300	30	11.1	60	9
51-8099	Plant & System Operators, All Other	330	370	40	12.1	80	9
51-9011	Chemical Equipment Operators & Tenders	120	160	40	33.3	20	10
51-9012	Separate, Filter, Clarify, Precipitate, & Still	300	340	40	13.3	50	10
51-9021	Crushing, Grinding, & Polishing Mach Setters	370	430	60	16.2	60	10
51-9022	Grinding & Polishing Workers, Hand	820	990	170	20.7	140	10
51-9023	Mix & Blend Mach Setters, Ops. & Tenders	1,110	1,290	180	16.2	180	10
51-9031	Cutters & Trimmers, Hand	670	730	60	9.0	90	11
51-9032	Cutting & Slicing Mach Setters, Ops. & Tenders	830	920	90	10.8	110	10
51-9041	Extrude, Form, Press, & Compact Mach Set, Ops,	920	1,080	160	17.4	160	10
51-9051	Furnace, Kiln, Oven, Drier, & Kettle Ops & Tenders	390	450	60	15.4	80	10
51-9061	Inspectors, Testers, Sorters, Samplers, & Weigh	8,520	8,870	350	4.1	1,340	10
51-9071	Jewelers & Precious Stone & Metal Workers	130	160	30	23.1	30	7
51-9081	Dental Laboratory Technicians	240	250	10	4.2	50	9
51-9083	Ophthalmic Laboratory Technicians	830	870	40	4.8	160	10
51-9111	Packaging & Filling Machine Operators & Tenders	4,590	5,410	820	17.9	770	11
51-9121	Coat, Paint, & Spray Mach Set, Opes & Tenders	1,210	1,370	160	13.2	200	10
51-9122	Painters, Transportation Equipment	640	760	120	18.8	110	10
51-9123	Painting, Coating, & Decorating Workers	620	740	120	19.4	110	11
51-9131	Photographic Process Workers	140	130	-10	-7.1	20	10
51-9132	Photographic Processing Machine Operators	510	540	30	5.9	100	11
51-9141	Semiconductor Processors	1,110	1,360	250	22.5	150	6
51-9191	Cementing & Gluing Machine Operators & Tenders	260	280	20	7.7	40	10
51-9192	Clean, Wash, & Metal Pickling Equip Ops & Tend	220	220	0	0.0	40	10
51-9194	Etchers & Engravers	250	290	40	16.0	50	9
51-9195	Molders, Shapers, & Casters, Except Metal & Plastic	120	140	20	16.7	20	10

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Percent	Openings Due to Separations	BLS Training Level	Education/ Experience
		2001 <sup>3</sup>	2008				
51-9196	Paper Goods Machine Setters, Ops, & Tenders	1,180	1,260	80	6.8	160	10 Moderate-Term On-The-Job Training
51-9198	Helpers--Production Workers	5,160	5,740	580	11.2	960	11 Short-Term On-The-Job-Training
51-9199	Production Workers, All Other	4,390	5,170	780	17.8	600	10 Moderate-Term On-The-Job Training
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>84,090</b>	<b>96,910</b>	<b>12,820</b>	<b>15.2</b>	<b>15,750</b>	
53-1021	First-Line Sups/Mgrs of Help, Labor, & Mat Move	1,120	1,310	190	17.0	180	8 Work Experience
53-1031	First-Line Sups/Mgrs of Trans & Mat-Moving Mach	1,290	1,540	250	19.4	210	8 Work Experience
53-2012	Commercial Pilots	130	160	30	23.1	20	7 Post-Secondary/Vocational Education
53-3011	Ambulance Drivers & Attendants, Ex EMTs	230	290	60	26.1	10	Moderate-Term On-The-Job Training
53-3021	Bus Drivers, Transit & Intercity	2,740	3,060	320	11.7	510	Moderate-Term On-The-Job Training
53-3022	Bus Drivers, School	1,870	2,020	150	8.0	350	11 Short-Term On-The-Job-Training
53-3031	Driver/Sales Workers	3,590	3,990	400	11.1	360	11 Short-Term On-The-Job-Training
53-3032	Truck Drivers, Heavy & Tractor-Trailer	8,060	9,680	1,620	20.1	840	10 Moderate-Term On-The-Job Training
53-3033	Truck Drivers, Light or Delivery Services	10,710	12,680	1,970	18.4	1,110	11 Short-Term On-The-Job-Training
53-3041	Taxi Drivers & Chauffeurs	910	1,070	160	17.6	60	11 Short-Term On-The-Job-Training
53-3099	Motor Vehicle Operators, All Other	1,520	1,790	270	17.8	190	11 Short-Term On-The-Job-Training
53-4011	Locomotive Engineers	130	170	40	30.8	20	8 Work Experience
53-4031	Railroad Conductors & Yardmasters	150	180	30	20.0	50	8 Work Experience
53-6021	Parking Lot Attendants	1,670	2,000	330	19.8	220	11 Short-Term On-The-Job-Training
53-6031	Service Station Attendants	680	750	70	10.3	260	11 Short-Term On-The-Job-Training
53-6099	Transportation Workers, All Other	850	970	120	14.1	230	11 Short-Term On-The-Job-Training
53-7011	Conveyor Operators & Tenders	890	1,030	140	15.7	190	11 Short-Term On-The-Job-Training
53-7051	Industrial Truck & Tractor Operators	4,620	5,270	650	14.1	470	11 Short-Term On-The-Job-Training
53-7061	Cleaners of Vehicles & Equipment	6,110	6,930	820	13.4	1,740	11 Short-Term On-The-Job-Training
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	20,080	23,260	3,180	15.8	5,210	11 Short-Term On-The-Job-Training

**Table 6: Occupational Employment Projections<sup>1,2</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Employment Change Percent	Openings Due to Separations	BLS Training Level	Education/Experience
		2001 <sup>3</sup>	2008				
53-7063	Machine Feeders & Offbearers	2,360	2,340	-20	-0.8	580	11 Short-Term On-The-Job-Training
53-7064	Packers & Packagers, Hand	12,300	14,120	1,820	14.8	2,350	11 Short-Term On-The-Job-Training
53-7072	Pump Operators, Except Wellhead Pumpers	160	180	20	12.5	30	10 Moderate-Term On-The-Job Training
53-7081	Refuse & Recyclable Material Collectors	1,160	1,200	40	3.4	380	11 Short-Term On-The-Job-Training
53-7121	Tank Car, Truck, & Ship Loaders	190	220	30	15.8	40	10 Moderate-Term On-The-Job Training
53-7199	Material Moving Workers, All Other	570	700	130	22.8	140	11 Short-Term On-The-Job-Training

<sup>1</sup>Employment and projections contained in these tables are considered estimates. See introduction for an explanation of data limitations.

<sup>2</sup>Subtotals may not add to the county totals due to the rounding and the suppression of data. Some data are suppressed because of confidentiality, excessive standard error, or other issues.

<sup>3</sup>March 2001 Benchmark.

\*This occupation is a summary occupation. There are no separations currently available for this SOC code. It is anticipated that in the future, this category will be broken out into more detailed occupations.

**Table 7: Occupations with the Most Job Openings<sup>1</sup>**  
**(Growth plus Separations)**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Number of Job Openings	BLS Training Level	Education/Experience
41-2031	Retail Salespersons	19,600	11	Short-Term On-The-Job Training
41-2011	Cashiers	16,420	11	Short-Term On-The-Job Training
35-3031	Waiters & Waitresses	14,870	11	Short-Term On-The-Job Training
35-3021	Comb Food Prep & Serving Wrks,	11,920	11	Short-Term On-The-Job Training
43-9061	Office Clerks, General	9,700	11	Short-Term On-The-Job Training
37-2011	Janitors & Clean, Ex Maids & Housekeeper	8,460	11	Short-Term On-The-Job Training
53-7062	Laborers & Freight, Stock, & Ma	8,390	11	Short-Term On-The-Job Training
41-4012	Sales Reps, Wholesale & Mfg, Ex Trans	7,350	10	Moderate-Term On-The-Job Training
43-4051	Customer Service Representative	7,340	10	Moderate-Term On-The-Job Training
11-1021	General & Operations Managers	6,920	4	Bachelor's Or Higher & Some Work Exp.
43-5081	Stock Clerks & Order Fillers	6,900	11	Short-Term On-The-Job Training
33-9032	Security Guards	6,380	11	Short-Term On-The-Job Training
37-3011	Landscaping & Groundskeeping Workers	6,370	11	Short-Term On-The-Job Training
35-2014	Cooks, Restaurant	5,500	9	Long-Term On-The-Job Training
29-1111	Registered Nurses	5,150	6	Associate Degree
43-4171	Receptionists & Information Clerks	5,010	11	Short-Term On-The-Job Training
25-2021	Elementary School Teachers, Exc	4,400	5	Bachelor's Degree
25-9041	Teacher Assistants	4,310	11	Short-Term On-The-Job Training
35-3022	Counter Attends, Cafe, Food Concession	4,230	11	Short-Term On-The-Job Training
51-2092	Team Assemblers	4,210	10	Moderate-Term On-The-Job Training
53-7064	Packers & Packagers, Hand	4,170	11	Short-Term On-The-Job Training
43-1011	First-Line Sups/Mgrs of Office	4,060	8	Work Experience
43-6011	Executive Secretaries & Administration Asst	3,980	10	Moderate-Term On-The-Job Training
35-2021	Food Preparation Workers	3,980	11	Short-Term On-The-Job Training
43-5071	Shipping, Receiving, & Traffic	3,800	11	Short-Term On-The-Job Training
43-3031	Bookkeeping, Accounting, & Audi	3,730	10	Moderate-Term On-The-Job Training
15-1031	Computer Software Engineers, Application	3,620	5	Bachelor's Degree
15-1041	Computer Support Specialists	3,330	6	Associate Degree
37-2012	Maids & Housekeeping Cleaners	3,180	11	Short-Term On-The-Job Training
41-2021	Counter & Rental Clerks	3,110	11	Short-Term On-The-Job Training

**Table 7: Occupations with the Most Job Openings<sup>1</sup>**  
**(Growth plus Separations)**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Number of Job Openings	BLS Training Level	Education/Experience
53-3033	Truck Drivers, Light or Deliver	3,080	11	Short-Term On-The-Job Training
43-6014	Secretaries, Except Legal, Medical	3,040	10	Moderate-Term On-The-Job Training
41-1011	First-Line Sups/Mgrs of Retail	3,040	8	Work Experience
13-2011	Accountants & Auditors	2,870	5	Bachelor's Degree
25-2031	Secondary School Teachers, Ex Spe Ed	2,790	5	Bachelor's Degree
47-2031	Carpenters	2,670	9	Long-Term On-The-Job Training
53-7061	Cleaners of Vehicles & Equipment	2,560	11	Short-Term On-The-Job Training
53-3032	Truck Drivers, Heavy & Tractor-Trailer	2,460	10	Moderate-Term On-The-Job Training
11-1011	Chief Executives	2,450	4	Bachelor's Or Higher & Some Work Exp.
11-3031	Financial Managers	2,330	4	Bachelor's Or Higher & Some Work Exp.
31-1012	Nursing Aides, Orderlies, & Attendants	2,320	11	Short-Term On-The-Job Training
31-9092	Medical Assistants	2,310	10	Moderate-Term On-The-Job Training
47-2111	Electricians	2,280	9	Long-Term On-The-Job Training
47-2061	Construction Laborers	2,270	10	Moderate-Term On-The-Job Training
35-9021	Dishwashers	2,270	11	Short-Term On-The-Job Training
39-3031	Ushers, Lobby Attendants, & Ticket	2,270	11	Short-Term On-The-Job Training
51-1011	First-Line Sups/Mgrs of Prod & Oper Wkrs	2,270	8	Work Experience
43-3071	Tellers	2,220	11	Short-Term On-The-Job Training
11-2022	Sales Managers	2,090	4	Bachelor's Or Higher & Some Work Exp.
49-9042	Maintenance & Repair Workers, General	2,010	9	Long-Term On-The-Job Training
<b>TOTAL OF THESE OCCUPATIONS</b>				<b>249,990</b>

<sup>1</sup>Excludes All Other categories.

**Table 8: Occupations with Projected Job Loss<sup>1</sup>**  
**2001 – 2008**  
**Orange County**

SOC Code	Occupation	Annual Average Employment		Number of Jobs Lost	Openings due to Separations	BLS Training Level	Education/Experience
		2001 <sup>2</sup>	2008				
43-4151	Order Clerks	8,620	8,030	-590	1,220	11	Short-Term On-The-Job Training
43-9041	Insurance Claims & Policy Processing Clerks	2,810	2,500	-310	310	10	Moderate-Term On-The-Job Training
43-2021	Telephone Operators	1,000	740	-260	180	11	Short-Term On-The-Job Training
43-4131	Loan Interviewers & Clerks	3,520	3,270	-250	160	11	Short-Term On-The-Job Training
43-2011	Switchboard Operators, Including Answering Service	2,780	2,550	-230	550	11	Short-Term On-The-Job Training
43-9011	Computer Operators	2,300	2,100	-200	270	10	Moderate-Term On-The-Job Training
43-9022	Word Processors & Typists	1,990	1,800	-190	270	10	Moderate-Term On-The-Job Training
43-4061	Eligibility Interviewers, Government	1,850	1,720	-130	360	10	Moderate-Term On-The-Job Training
51-3021	Butchers & Meat Cutters	1,540	1,460	-80	260	9	Long-Term On-The-Job Training
51-6093	Upholsterers	720	650	-70	160	9	Long-Term On-The-Job Training
49-2022	Telecomm Equipment Install & Repair	3,620	3,570	-50	460	7	Post-Secondary Vocational Education
43-9071	Office Machine Operators, Except Computer	910	860	-50	220	11	Short-Term On-The-Job Training
49-2097	Electronic Home Entertainment Installer	280	240	-40	30	7	Post-Secondary Vocational Education
43-5041	Meter Readers, Utilities	210	180	-30	30	11	Short-Term On-The-Job Training
53-7063	Machine Feeders & Offbearers	2,360	2,340	-20	580	11	Short-Term On-The-Job Training
51-4034	Lathe & Turn Mach Tool Set, Ops	980	960	-20	270	10	Moderate-Term On-The-Job Training
51-5022	Prepress Technicians & Workers	1,230	1,210	-20	210	9	Long-Term On-The-Job Training
43-5021	Couriers & Messengers	2,320	2,310	-10	450	11	Short-Term On-The-Job Training
51-4031	Cutting, Punching, & Press Mach	2,500	2,490	-10	340	10	Moderate-Term On-The-Job Training
51-4032	Drill & Bore Mach Tool Set, Ops	890	880	-10	200	10	Moderate-Term On-The-Job Training
43-3061	Procurement Clerks	680	670	-10	110	11	Short-Term On-The-Job Training
51-9131	Photographic Process Workers	140	130	-10	20	10	Moderate-Term On-The-Job Training
<b>TOTAL OF THESE OCCUPATIONS</b>		<b>43,250</b>	<b>40,660</b>	<b>-2,590</b>	<b>6,660</b>		

<sup>1</sup>Excludes All Other categories.

<sup>2</sup>March 2001 Benchmark.



---

## **Appendix**



# **Standard Industrial Classification**

The Standard Industrial Classification (SIC) is a nationally standardized system for identifying and coding business establishments according to their industrial activity. An "establishment" is an economic unit, generally located at a single physical location, where business is conducted or where services or industrial operations are performed. The Standard Industrial Classification (SIC) Manual is the reference guide used to accurately apply and/or understand the classification coding system.

The SIC Manual's format separates industries into ten broad divisions, such as manufacturing and retail trade. Within those broad groupings are more specific two-digit codes, as well as more detailed three-digit and four-digit codes, that identify specific industries. Brief narratives describe the kinds of establishments contained in each classification category.

## **Suggestions for Users**

The SIC Manual facilitates the collection, analysis and publication of information about business establishments. This standardized system is used throughout the United States to promote uniformity in the publications of private and governmental agencies. The Employment Development Department's field office personnel use the manual to assign SIC codes to employers to aid in providing services. Trade associations and private industry use the manual in reference books, such as the California Manufacturers Register.

The manual can help one to understand the composite industries summarized in publications. However, all public sector workers are usually grouped together into a category called "government", which includes federal, state and local government, and state and local education.

The U.S. Department of Labor, Occupational Safety and Health Administration provides SIC information on the Internet at:

**[www.osha.gov](http://www.osha.gov)**

The SIC Manual may be purchased from U.S. Government Bookstores, Bureau of Labor Statistics, or the Superintendent of Documents in Los Angeles or San Francisco. For information about purchasing this manual, contact:

U.S. Government Bookstore  
Marathon Plaza, Room 141-S  
303 2nd Street  
San Francisco, CA 94107  
Phone – (415) 512-2770  
Fax – (415) 512-2776  
<http://access.gpo.go>

# Standard Occupational Classification (SOC)

The Standard Occupational Classification (SOC) 1998 System was developed in response to a growing need for a universal occupational classification system—a system which would allow government agencies and private industry to produce comparable data. The SOC system was designed to cover all occupations in which work is performed for pay or profit and will be used by all federal agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.

Data collected by the 2000 Census of Population will be coded to the 1998 SOC; the Department of Labor's Occupational Information Network (O\*NET), adheres to the 1998 SOC. In fact, all federal government agencies that collect occupational data are expected to adopt the 1998 SOC over the next few years.

## General Characteristics of the Revised SOC

This system classifies workers at four levels of aggregation:

- major group
- minor group
- broad occupation
- detailed occupation

All workers are classified into one of over 820 occupations, according to their occupational definition. To facilitate classification, all occupations are clustered into one of 23 major groups. Within these major groups, there are 96 minor groups, and 449 broad occupations. Each broad occupation includes detailed occupation(s) requiring similar job duties, skills, education, or experience.

The following example shows the hierarchical structure of the 1998 SOC:

19-0000 Life, physical, and social science occupations (*major group*)

19-000 Life scientists (*minor group*)

19-1020 Biological scientists  
(*broad occupation*)

19-1021 Biochemists and biophysicists  
(*detailed occupation*)

19-1022 Microbiologists  
(*detailed occupation*)

19-1023 Zoologists and wildlife biologists  
(*detailed occupation*)

19-1029 Biological scientists, all other  
(*detailed occupation*)

Additional information, updated revision plans, and information on the implementation of the 1998 SOC are available at the Bureau of Labor Statistics (BLS) Internet site:

[www.bls.gov/soc/socguide.htm](http://www.bls.gov/soc/socguide.htm)

# North American Industry Classification System (NAICS)

The United States has a new industry classification system. The North American Industry Classification System (NAICS) will soon replace the U.S. Standard Industrial Classification (SIC) system.

The first-ever North American Industry classification system, NAICS was developed by the U.S., Canada and Mexico to provide comparable statistics across countries. For the first time, government and business analysts will be able to directly compare industrial production statistics collected and published in the North American Free Trade Agreement countries.

NAICS will reshape the way we view our changing economy. It is a unique, all-new system for classifying business establishments. It is the first economic classification system to be constructed based on a single economic concept. Economic units that use like processes to produce goods or services are grouped together. This "production-oriented" system means that statistical agencies in the United States will produce data that can be used for:

- measuring productivity, unit labor costs, and the capital intensity of production;
- constructing input-output relationships and;
- estimating employment-output relationships and other such statistics that require that inputs and outputs be used together.

NAICS responds to increasing and serious criticism about the SIC. NAICS reflects the structure of today's economy in the United States, Canada and Mexico, including the emergence and growth of the service sector and new and advanced technologies. It is a flexible system that allows each country to recognize important industries below the level at which comparable data will be shown for all three countries.

## NAICS-based statistics.

Advance statistics will appear in early 1999. A report in 2000 will show relationships between NAICS and SIC industries. Implementation by Federal agencies will be in phases. Some agency programs will convert to NAICS as early as 1999, others as late as 2004.

## How is NAICS better?

NAICS will make economic statistics more useful. It will improve basic benchmark and current performance statistics, like manufacturers' shipments, retail sales, and service receipts. It will improve statistics by providing an all-new industry classification system that is more:

*Relevant.* NAICS identifies new industries, revises concepts, and reorganizes classifications so that industry-classified statistics highlight businesses that contribute most to our economy.

*Consistent.* NAICS classifies businesses into industries based on one principle instead of several; the principle that businesses using similar production processes are classified together.

*Comparable.* NAICS provides the first-ever comparability in North American industry classifications and economic statistics.

*Flexible.* NAICS classifications will be updated regularly to keep pace with changes in our economy; every 5 years, all three North American countries will review NAICS and make needed revisions.

## How NAICS will affect the data you use.

Every sector of the economy has been restructured and redefined:

- A new *Information* sector combines communications, publishing, motion picture and sound recording, and online services, recognizing our information-based economy.
- *Manufacturing* is restructured to incorporate high-tech industries, with a new subsector devoted to computers and electronics.
- *Retail Trade* is redefined. In addition, eating and drinking places are transferred to the new *Accommodation and Food Services* sector.
- The difference between Retail and Wholesale is now based on how each store conducts business.

For example, many computer stores are reclassified from wholesale to retail.

- Nine new service sectors and 250 new service industries are recognized.

#### **All new numbering system**

Numeric codes for each NAICS classification are completely different from those of the SIC. The new numbering system underscores the “clean slate” approach taken in NAICS and allows its classification changes to be fully developed.

The new system provides five levels of classification (up from four in the SIC), detailed codes that have a maximum of six-digits (up from four in the SIC) and detailed classifications called “U.S. Industry” (instead of “Industry” in the SIC). These changes require new numbers, even for industries that continue without change.

For example, both NAICS and SIC include the detailed industry, “Passenger car rental.” However, in NAICS, it has code number 532111, and in the SIC, it was code number 7514. While all NAICS numeric codes are new, like the SIC, they are organized into multi-level hierarchical classification groups that build up from the detailed industry level.

The additional level of classification and expanded number of digits permit NAICS to account for the increased number of classifications, provide flexibility in structuring industry classification groups, and allow for country-based variations in classification detail.

A variety of resources are available to help users of business statistics understand and use NAICS. Additional information, answers to frequently asked questions, and updated agency implementation plans are available at the Census Bureau's Internet site:

**[www.census.gov/naics](http://www.census.gov/naics)**

Answers to classification and data program inquiries may also be addressed to industry experts at:

**Phone: 1-888-75NAICS**

**Email: [naics@census.gov](mailto:naics@census.gov)**

# Projection Methods and Economic Assumptions

The employment projection process consists of two phases: first, projections for employment by industry are made using both historical data and current information about the economy. Next, the industry projections become a primary source used to project changes in occupational employment.

Changes in occupational employment over time result from two principal sources: industry growth and technological change. In developing occupational employment projections, both of these components must be addressed.

The following is a discussion of how industry and occupational projections are developed, beginning with a description of data sources and followed by a description of the steps involved.

## Principal Data Sources

*Employment by Industry* The source of the official historical industry employment series used for industry projections for the state and each county is the Current Employment Statistics (CES) program. This is a Federal/State cooperative program that compiles monthly estimates of industry employment groupings for the state and each county. These monthly industry employment estimates are based primarily on employer sample surveys.

A second source used in industry forecasts is the Covered Employment and Wage Data, or ES-202 program. Essentially, this program extracts employment and wage information from quarterly tax returns filed by each California employer covered by unemployment insurance. Each employer has been assigned a specific industry and county code and these data are compiled to provide the 'actual' industry employment levels for each industry and county. These data are then used for benchmarking the monthly industry employment estimates made in the CES program. This is also a Federal/State cooperative program.

*Employment by Occupation* Occupational employment estimates are based on survey data collected through the Occupational Employment Statistics (OES) program. The OES survey is an annual mail survey of nonfarm employers conducted by EDD in cooperation with the U.S. Bureau of Labor

Statistics. The survey is based on a sample designed to represent the universe of employers in each state. In California, data are collected for over 800 occupations at the three-digit SIC level of detail. The survey samples approximately 110,000 business establishments over a three year period.

## The Process

*Industry Projections* Industry projections are first developed at aggregated levels (industry groupings) for the state and each county based on the Current Employment Statistics employment series.

Second, these aggregated industry projections are then broken down into more industry specific detail using the ES-202 data. The industry specific projections then become the primary source from which occupational projections are developed by using industry staffing patterns data. The following steps outline the process:

- Approximately every two years, industry employment projections are produced for the nation by the Bureau of Labor Statistics.
- Industry projections are then developed for the state using input from the national forecast and the historical industry employment series for the state.
- County industry projections are then developed using input from the state forecast and the historical employment series for each county.
- State projections are developed for ten years from the base period and county projections are developed for seven years from the base period.
- State forecasts are reviewed by LMID industry analysts, California's Department of Finance, and academics.
- County forecasts are reviewed by local area consultants who provide up-to-date information regarding recent developments in each county not normally accounted for in the model.

**Occupational Projections** The distribution of industry employment by occupation is performed in three steps.

- OES survey responses are summarized by industry and matched with appropriate SIC in the area. (In cases where local OES responses are not available, statewide responses or another area's responses are substituted.)
- The survey data are adjusted to total to the annual average employment level for each industry. This results in estimates of employment by occupation within the three-digit SICs for the base year.
- Finally, base year staffing patterns are adjusted to account for projected shifts in occupational distributions due to technological changes.

These projected changes are derived from special studies conducted by the U.S. Bureau of Labor Statistics. Applying these changes to the base year staffing patterns results in staffing patterns by three-digit SIC for the projected year. Projected year staffing patterns are applied to the industry employment projections to produce occupational employment projections within three-digit SICs. Data by occupation are then summed to get the occupational estimates. The difference between the base year occupation estimates and the projected year projections represents the job growth resulting from industry growth and from technological change. (Change factors do not try to predict regulatory changes.)

Demand for workers is also created by openings that result when workers leave jobs to enter other occupations, retire, or leave the labor force for other reasons. These openings, termed *separations*, are important because, in most occupations, they exceed job openings resulting from employment growth. Even occupations that are projected to decline usually provide job openings due to separations. Separations are developed from separation rates compiled on a national basis every two years by the Bureau Of Labor Statistics.

### Economic Assumptions

The industry and occupational projections in this report are based on the following assumptions:

- The institutional framework of the U.S. economy will not change radically.
- Recent technological and scientific trends will continue.
- The long-term employment patterns will continue in most industries.
- Federal, state, and local government agencies will continue to operate under budgetary constraints.
- No major events, such as war, will occur that will significantly alter the industrial structure of the economy, the occupational staffing patterns, or the rate of long-term growth.
- Population growth rates and age distributions will not differ significantly from Department of Finance projections presently available.
- Attitudes toward work, education, income, and leisure will not change significantly.

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Accountants & Auditors	56	13-2011
Actors	283	27-2011
Actuaries	82	15-2011
Admin Law Judges, Adjudicators, & Hearing Officers	194	23-1021
Administrative Services Managers	11	11-3011
Adult Literacy, Remedial Ed, & GED Teachers &	252	25-3011
Advertising & Promotions Managers	7	11-2011
Advertising Sales Agents	485	41-3011
Aerospace Engineering & Operations Technicians	117	17-3021
Aerospace Engineers	95	17-2011
Agents & Bus Mgrs of Artists, Performers & Athletes	39	13-1011
Agricultural & Food Science Technicians	163	19-4011
Agricultural & Food Scientists, All Other	131	19-1019
Agricultural Engineers	96	17-2021
Agricultural Equipment Operators	564	45-2091
Agricultural Inspectors	561	45-2011
Agricultural Sciences Teachers, Postsecondary	209	25-1041
Agricultural Workers, All Other	568	45-2099
Air Crew Members	873	55-3011
Air Crew Officers	862	55-1011
Air Traffic Controllers	813	53-2021
Air Transportation Workers, All Other	815	53-2099
Aircraft Cargo Handling Supervisors	808	53-1011
Aircraft Launch & Recovery Officers	863	55-1012
Aircraft Launch & Recovery Specialists	874	55-3012
Aircraft Mechanics & Service Technicians	654	49-3011
Aircraft Struct, Surfaces, Rigging, & Systems Assemb	696	51-2011
Airfield Operations Specialists	814	53-2022
Airline Pilots, Copilots, & Flight Engineers	811	53-2011
Ambulance Drivers & Attendants, Ex EMTs	816	53-3011
Amusement & Recreation Attendants	451	39-3091
Anesthesiologists	323	29-1061
Animal Breeders	562	45-2021
Animal Control Workers	402	33-9011
Animal Scientists	128	19-1011
Animal Trainers	444	39-2011
Announcers, All Other	295	27-3019
Anthropologists & Archeologists	158	19-3091
Anthropology & Archeology Teachers, Postsecond	216	25-1061
Appraisers & Assessors of Real Estate	57	13-2021
Arbitrators, Mediators, & Conciliators	195	23-1022
Architects, Except Landscape & Naval	90	17-1011
Architects, Surveyors, & Cartographers, All Other	94	17-1099
Architectural & Civil Drafters	113	17-3011
Architecture & Engineering Occupations	89	17-0000
Architecture Teachers, Postsecondary	207	25-1031
Archivists, Curators, & Museum Technicians	256	25-4011
Archivists, Curators, & Museum Techs, All Other	259	25-4019
Area, Ethnic, & Cultral Studies Teachrs, Postsecond	217	25-1062
Armored Assault Vehicle Crew Members	875	55-3013

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Armored Assault Vehicle Officers	864	55-1013
Art & Design Workers, All Other	282	27-1099
Art Directors	269	27-1011
Art, Drama, & Music Teachers, Postsecondary	231	25-1121
Artillery & Missile Crew Members	876	55-3014
Artillery & Missile Officers	865	55-1014
Artists & Related Workers, All Other	273	27-1019
Arts, Design, Entertainment, Sports, & Media Occs	268	27-0000
Assemblers & Fabricators, All Other	705	51-2099
Astronomers	141	19-2011
Athletes & Sports Competitors	285	27-2021
Athletic Trainers	366	29-9091
Atmos, Earth, Marine, & Space Sciences Teachrs	212	25-1051
Atmospheric & Space Scientists	143	19-2021
Audio & Video Equipment Technicians	305	27-4011
Audiologists	334	29-1121
Audio-Visual Collections Specialists	262	25-9011
Automotive Body & Related Repairers	655	49-3021
Automotive Glass Installers & Repairers	656	49-3022
Automotive Service Technicians & Mechanics	657	49-3023
Avionics Technicians	645	49-2091
Baggage Porters & Bellhops	464	39-6011
Bailiffs	395	33-3011
Bakers	706	51-3011
Barbers	458	39-5011
Bartenders	419	35-3011
Bicycle Repairers	665	49-3091
Bill & Account Collectors	505	43-3011
Billing & Posting Clerks & Machine Operators	506	43-3021
Bindery Workers	740	51-5011
Biochemists & Biophysicists	132	19-1021
Biological Science Teachers, Postsecondary	210	25-1042
Biological Scientists, All Other	135	19-1029
Biological Technicians	164	19-4021
Biomedical Engineers	97	17-2031
Bldng & Grounds Cleaning & Maint Wrkers, All Other	439	37-9099
Boilermakers	579	47-2011
Bookbinders	741	51-5012
Bookkeeping, Accounting, & Auditing Clerks	507	43-3031
Brickmasons & Blockmasons	580	47-2021
Bridge & Lock Tenders	836	53-6011
Broadcast News Analysts	296	27-3021
Broadcast Technicians	306	27-4012
Brokerage Clerks	512	43-4011
Budget Analysts	58	13-2031
Building & Grounds Cleaning & Maintenance Occs	428	37-0000
Building Cleaning Workers, All Other	433	37-2019
Bus & Truck Mechs & Diesel Engine Specialists	658	49-3031
Bus Drivers, School	818	53-3022
Bus Drivers, Transit & Intercity	817	53-3021

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Business & Financial Operations Occupations	38	13-0000
Business Operations Specialists, All Other	55	13-1199
Business Teachers, Postsecondary	204	25-1011
Butchers & Meat Cutters	707	51-3021
Cabinetmakers & Bench Carpenters	761	51-7011
Camera & Photographic Equipment Repairers	680	49-9061
Camera Ops, Television, Video, & Motion Picture	310	27-4031
Captains, Mates, & Pilots of Water Vessels	832	53-5021
Cardiovascular Technologists & Technicians	347	29-2031
Cargo & Freight Agents	530	43-5011
Carpenters	582	47-2031
Carpet Installers	583	47-2041
Cartographers & Photogrammetrists	92	17-1021
Cashiers	480	41-2011
Cement Masons & Concrete Finishers	587	47-2051
Cementing & Gluing Machine Operators & Tenders	798	51-9191
Chefs & Head Cooks	410	35-1011
Chemical Engineers	98	17-2041
Chemical Equipment Operators & Tenders	777	51-9011
Chemical Plant & System Operators	773	51-8091
Chemical Technicians	165	19-4031
Chemistry Teachers, Postsecondary	213	25-1052
Chemists	144	19-2031
Chief Executives	4	11-1011
Child Care Workers	470	39-9011
Child, Family, & School Social Workers	180	21-1021
Chiropractors	314	29-1011
Choreographers	289	27-2032
Civil Engineering Technicians	118	17-3022
Civil Engineers	99	17-2051
Claims Adjusters, Examiners, & Investigators	43	13-1031
Clean, Wash, & Metal Pickling Equip Ops & Tenders	799	51-9192
Cleaners of Vehicles & Equipment	849	53-7061
Clergy	188	21-2011
Clinical, Counseling, & School Psychologists	153	19-3031
Coaches & Scouts	286	27-2022
Coat, Paint, & Spray Mach Set, Opes & Tenders	792	51-9121
Coil Winders, Tapers, & Finishers	697	51-2021
Coin, Vend, & Amusement Mach Servicers & Repair	685	49-9091
Comb Food Prep & Serving Wrkers, Incl Fast Food	420	35-3021
Comm& & Control Center Officers	866	55-1015
Command & Control Center Specialists	877	55-3015
Commercial & Industrial Designers	274	27-1021
Commercial Divers	686	49-9092
Commercial Pilots	812	53-2012
Communications Equipment Operators, All Other	504	43-2099
Communications Teachers, Postsecondary	232	25-1122
Community & Social Service Specialists, All Other	187	21-1099
Community & Social Services Occupations	173	21-0000
Comp Officers, Ex Ag, Const, Hlth & Safety, & Trans	45	13-1041

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Comp-Controlled Mach Tool Ops, Metal & Plastic	714	51-4011
Compensation & Benefits Managers	14	11-3041
Compensation, Benefits, & Job Analysis Specialists	49	13-1072
Computer & Information Scientists, Research	72	15-1011
Computer & Information Systems Managers	12	11-3021
Computer & Mathematical Science Occupations	71	15-0000
Computer Hardware Engineers	100	17-2061
Computer Operators	546	43-9011
Computer Programmers	73	15-1021
Computer Science Teachers, Postsecondary	205	25-1021
Computer Software Engineers, Applications	74	15-1031
Computer Software Engineers, Systems Software	75	15-1032
Computer Specialists, All Other	81	15-1099
Computer Support Specialists	76	15-1041
Computer Systems Analysts	77	15-1051
Computer, Automated Teller, & Office Mach Repairer	642	49-2011
Concierges	465	39-6012
Conservation Scientists	136	19-1031
Construction & Building Inspectors	616	47-4011
Construction & Extraction Occupations	577	47-0000
Construction & Extraction Occupations, All Other	639	47-9999
Construction & Related Workers, All Other	624	47-4099
Construction Laborers	589	47-2061
Construction Managers	22	11-9021
Construction Trades & Related Workers, All Other	625	47-4999
Continuous Mining Machine Operators	631	47-5041
Control & Valve Installers & Repairers, Ex Mech	670	49-9012
Conveyor Operators & Tenders	842	53-7011
Cooks, All Other	417	35-2019
Cooks, Fast Food	412	35-2011
Cooks, Institution & Cafeteria	413	35-2012
Cooks, Private Household	414	35-2013
Cooks, Restaurant	415	35-2014
Cooks, Short Order	416	35-2015
Cooling & Freezing Equipment Operators & Tenders	800	51-9193
Correctional Officers & Jailers	396	33-3012
Correspondence Clerks	513	43-4021
Cost Estimators	46	13-1051
Costume Attendants	452	39-3092
Counselors, All Other	179	21-1019
Counselors, Social & Religious Workers, All Other	191	21-9099
Counter & Rental Clerks	482	41-2021
Counter Attends, Cafe, Food Concess, & Coffee Shop	421	35-3022
Couriers & Messengers	531	43-5021
Court Reporters	198	23-2091
Court, Municipal, & License Clerks	514	43-4031
Craft Artists	270	27-1012
Crane & Tower Operators	843	53-7021
Credit Analysts	59	13-2041
Credit Authorizers, Checkers, & Clerks	515	43-4041

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Criminal Justice & Law Enforce Teachrs, Postsecond	228	25-1111
Crossing Guards	406	33-9091
Crushing, Grinding, & Polishing Mach Setters, Ops	779	51-9021
Curators	257	25-4012
Customer Service Representatives	516	43-4051
Cutters & Trimmers, Hand	782	51-9031
Cutting & Slicing Mach Setters, Ops, & Tenders	783	51-9032
Cutting, Punching, & Press Machine Setters, Ops	719	51-4031
Dancers	288	27-2031
Data Entry Keyers	547	43-9021
Database Administrators	78	15-1061
Demonstrators & Product Promoters	492	41-9011
Dental Assistants	380	31-9091
Dental Hygienists	346	29-2021
Dental Laboratory Technicians	788	51-9081
Dentists, All Other Specialists	319	29-1029
Dentists, General	315	29-1021
Derrick Operators, Oil & Gas	626	47-5011
Designers, All Other	281	27-1029
Desktop Publishers	549	43-9031
Detectives & Criminal Investigators	397	33-3021
Diagnostic Medical Sonographers	348	29-2032
Dietetic Technicians	352	29-2051
Dietitians & Nutritionists	320	29-1031
Dining Rm & Cafeteria Attendants & Bartender Help	424	35-9011
Directors, Religious Activities & Education	189	21-2021
Dishwashers	425	35-9021
Dispatchers, Except Police, Fire, & Ambulance	533	43-5032
Drafters, All Other	116	17-3019
Drafters, Engineering, & Map Technicians, All Other	126	17-3099
Dredge Operators	844	53-7031
Drill & Bore Mach Tool Set, Ops, & Tend, Metal & Plasti	720	51-4032
Driver/Sales Workers	819	53-3031
Dr-to-Dr Sales Wrkrs, Nws & St Vndrs, & Rel Wrkrs	498	41-9091
Drywall & Ceiling Tile Installers	593	47-2081
Earth Drillers, Except Oil & Gas	629	47-5021
Economics Teachers, Postsecondary	218	25-1063
Economists	150	19-3011
Editors	300	27-3041
Educ Admins, Elementary & Secondary School	24	11-9032
Educ Admins, Preschool & Child Care Center	23	11-9031
Education Administrators, All Other	26	11-9039
Education Administrators, Postsecondary	25	11-9033
Education Teachers, Postsecondary	226	25-1081
Education, Training, & Library Occupations	203	25-0000
Education, Training, & Library Workers, All Other	266	25-9099
Educational, Vocational, & School Counselors	175	21-1012
Electric Motor, Power Tool, & Related Repairers	646	49-2092
Electrical & Electronic Engineering Technicians	119	17-3023
Electrical & Electronic Equipment Assemblers	698	51-2022

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Electrical & Electronic Equip Mechs, Install, & Repair	653	49-2099
Electrical & Electronics Drafters	114	17-3012
Electrical & Electronics Install & Repair, Trans Equipt	647	49-2093
Electrical & Electronics Repair, Comm & Indust Equipt	648	49-2094
Electrical & Electronics Repair, Powerhse, Substrn, & Re	649	49-2095
Electrical Engineers	101	17-2071
Electrical Power-Line Installers & Repairers	678	49-9051
Electricians	595	47-2111
Electromechanical Equipment Assemblers	699	51-2023
Electro-Mechanical Technicians	120	17-3024
Electronic Equipt Install & Repair, Motor Veh	650	49-2096
Electronic Home Entertainment Equipt Install & Repair	651	49-2097
Electronics Engineers, Except Computer	102	17-2072
Elementary School Teachers, Except Special Ed	244	25-2021
Elevator Installers & Repairers	617	47-4021
Eligibility Interviewers, Government Programs	517	43-4061
Embalmers	456	39-4011
Emergency Management Specialists	47	13-1061
Emergency Medical Technicians & Paramedics	351	29-2041
Employment, Recruitment, & Placement Specialists	48	13-1071
Engine & Other Machine Assemblers	700	51-2031
Engineering Managers	27	11-9041
Engineering Teachers, Postsecondary	208	25-1032
Engineering Technicians, Except Drafters, All Other	124	17-3029
Engineers, All Other	112	17-2199
English Lang & Literature Teachers, Postsecond	233	25-1123
Entertainers & Performers, Sports & Rel Workers	292	27-2099
Entertainment Attendants & Rel Workers, All Other	454	39-3099
Environ Science & Protection Techs, Incl Health	169	19-4091
Environmental Engineering Technicians	121	17-3025
Environmental Engineers	103	17-2081
Environmental Science Teachers, Postsecondary	214	25-1053
Environmental Scientists & Specialists, Incl Health	146	19-2041
Epidemiologists	138	19-1041
Etchers & Engravers	801	51-9194
Excavating & Loading Machine & Dragline Operators	845	53-7032
Executive Secretaries & Administrative Assistants	542	43-6011
Explosive Wrkers, Ordnce Handling Experts, & Blasters	630	47-5031
Extraction Workers, All Other	638	47-5099
Extrud & Draw Mach Setters, Ops, & Tends, Metl & Plas	716	51-4021
Extrude & Form Mach Setters, Ops, & Tenders	757	51-6091
Extrude, Form, Press, & Compact Mach Set, Ops, & Tend	784	51-9041
Fabric & Apparel Patternmakers	758	51-6092
Fabric Menders, Except Garment	687	49-9093
Fallers	572	45-4021
Family & General Practitioners	324	29-1062
Farm & Home Management Advisors	263	25-9021
Farm Equipment Mechanics	659	49-3041
Farm Labor Contractors	560	45-1012
Farm, Ranch, & Other Agricultural Managers	20	11-9011

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Farmers & Ranchers	21	11-9012
Farming, Fishing, & Forestry Occupations	558	45-0000
Farming, Fishing, & Forestry Workers, All Other	576	45-9099
Farmworkers, Agricultural Production	567	45-2094
Farmworkers, Farm & Ranch Animals	566	45-2093
Farmwrkrs & Labor, Crop, Nursery, & Greenhouse	565	45-2092
Fashion Designers	275	27-1022
Fence Erectors	618	47-4031
Fiberglass Laminators & Fabricators	702	51-2091
File Clerks	518	43-4071
Film & Video Editors	311	27-4032
Financial Analysts	60	13-2051
Financial Examiners	63	13-2061
Financial Managers	13	11-3031
Financial Specialists, All Other	68	13-2099
Financial, Information, & Record Clerks, All Other	529	43-4999
Fine Artists, Incl Painters, Sculptors, & Illustrators	271	27-1013
Fire Fighters	392	33-2011
Fire Inspectors & Investigators	393	33-2021
First-Line Supervisors/Managers of Air Crew Members	870	55-2011
First-Line Supervisors/Managers of All Other Tactical O	872	55-2013
First-Line Supervisors/Managers of Weapons Specialists	871	55-2012
First-Line Sups/Managers of Correctional Officers	388	33-1011
First-Line Sups/Managers of Police & Detectives	389	33-1012
First-Line Sups/Mgrs of Construction Trades	578	47-1011
First-Line Sups/Mgrs of Farm, Fish, & Forest Wrkrs	559	45-1011
First-Line Sups/Mgrs of Fire Fighting & Prevent Wrkrs	390	33-1021
First-Line Sups/Mgrs of Food Prep & Serving Wrkrs	411	35-1012
First-Line Sups/Mgrs of Help, Labor, & Mat Move, Hand	809	53-1021
First-Line Sups/Mgrs of Housekeep & Janitor Wrkrs	429	37-1011
First-Line Sups/Mgrs of Lndscp, Lwn Serv, & Grndskeep W	430	37-1012
First-Line Sups/Mgrs of Mechanics, Installer	641	49-1011
First-Line Sups/Mgrs of Non-Retail Sales Workers	479	41-1012
First-Line Sups/Mgrs of Office & Admin Support Wrkrs	501	43-1011
First-Line Sups/Mgrs of Personal Service Workers	443	39-1021
First-Line Sups/Mgrs of Prod & Operating Wrkrs	695	51-1011
First-Line Sups/Mgrs of Retail Sales Workers	478	41-1011
First-Line Sups/Mgrs of Trans & Mat-Moving Mach & Veh O	810	53-1031
First-Line Sups/Mgrs, Protective Serv Wrkrs, All Other	391	33-1099
Fish & Game Wardens	398	33-3031
Fishers & Related Fishing Workers	569	45-3011
Fitness Trainers & Aerobics Instructors	472	39-9031
Flight Attendants	468	39-6031
Floor Layers, Except Carpet, Wood, & Hard Tiles	584	47-2042
Floor Sanders & Finishers	585	47-2043
Floral Designers	276	27-1023
Food & Tobac Roast, Bake, & Dry Mach Ops & Tends	710	51-3091
Food Batchmakers	711	51-3092
Food Cooking Machine Operators & Tenders	712	51-3093
Food Prep & Serving Related Workers, All Other	427	35-9099

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Food Preparation & Serving Related Occupations	409	35-0000
Food Preparation Workers	418	35-2021
Food Processing Workers, All Other	713	51-3099
Food Scientists & Technologists	129	19-1012
Food Servers, Nonrestaurant	423	35-3041
Food Service Managers	28	11-9051
Foreign Language & Lit Teachrs, Postsecond	234	25-1124
Forensic Science Technicians	170	19-4092
Forest & Conservation Science Teachrs, Postsecond	211	25-1043
Forest & Conservation Technicians	171	19-4093
Forest & Conservation Workers	571	45-4011
Forest Fire Inspectors & Prevention Specialists	394	33-2022
Foresters	137	19-1032
Forging Mach Setters, Ops, & Tends, Metal & Plastic	717	51-4022
Foundry Mold & Coremakers	729	51-4071
Funeral Attendants	457	39-4021
Funeral Directors	29	11-9061
Furnace, Kiln, Oven, Drier, & Kettle Ops & Tenders	785	51-9051
Furniture Finishers	762	51-7021
Gaming & Sports Book Writers & Runners	447	39-3012
Gaming Cage Workers	508	43-3041
Gaming Change Persons & Booth Cashiers	481	41-2012
Gaming Dealers	446	39-3011
Gaming Managers	30	11-9071
Gaming Service Workers, All Other	448	39-3019
Gaming Supervisors	441	39-1011
Gaming Surveillance Officers & Gaming Investigators	404	33-9031
Gaming Workers, All Other	455	39-3199
Gas Compressor & Gas Pumping Station Operators	853	53-7071
Gas Plant Operators	774	51-8092
General & Operations Managers	5	11-1021
Geographers	159	19-3092
Geography Teachers, Postsecondary	219	25-1064
Geological & Petroleum Technicians	166	19-4041
Geoscientists, Except Hydrologists & Geographers	147	19-2042
Glaziers	596	47-2121
Graders & Sorters, Agricultural Products	563	45-2041
Graduate Teaching Assistants	237	25-1191
Graphic Designers	277	27-1024
Grind, Lap, Polish, & Buff Mach Tool Set, Ops, & Tend,	721	51-4033
Grinding & Polishing Workers, Hand	780	51-9022
Grounds Maintenance Workers, All Other	438	37-3019
Hairdressers, Hairstylists, & Cosmetologists	459	39-5012
Hazardous Materials Removal Workers	619	47-4041
Health & Safety Engrs, Ex Mining Safety Engrs & Insp	104	17-2111
Health Diagnosing & Treating Practitioners, All Other	343	29-1199
Health Educators	184	21-1091
Health Professionals & Technicians, All Other	368	29-9199
Health Specialties Teachers, Postsecondary	224	25-1071
Health Technologists & Technicians, All Other	362	29-2099

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Healthcare Practitioners & Tech Workers, All Other	367	29-9099
Healthcare Practitioners & Technical Occupations	313	29-0000
Healthcare Support Occupations	371	31-0000
Healthcare Support Workers, All Other	386	31-9099
Heat Treat Equipt Set, Ops, & Tend, Metal & Plastic	735	51-4191
Heating, Air Conditioning, & Refrigeration Mechanics	671	49-9021
Helpers, Construction Trades, All Other	615	47-3019
Helpers--Brick, Block, Stonemasons, & Tile & Marble Set	609	47-3011
Helpers--Carpenters	610	47-3012
Helpers--Electricians	611	47-3013
Helpers--Extraction Workers	637	47-5081
Helpers--Installation, Maint, & Repair Workers	692	49-9098
Helpers--Paint, Paperhanger, Plaster, & Stucco	612	47-3014
Helpers--Pipelayer, Plumber, Pipefitter, & Steamfitter	613	47-3015
Helpers--Production Workers	805	51-9198
Helpers--Roofers	614	47-3016
Highway Maintenance Workers	620	47-4051
Historians	160	19-3093
History Teachers, Postsecondary	235	25-1125
Hoist & Winch Operators	847	53-7041
Home Appliance Repairers	672	49-9031
Home Economics Teachers, Postsecondary	238	25-1192
Home Health Aides	372	31-1011
Hosts & Hostess, Restaurant, Lounge, & Coffee Shp	426	35-9031
Hotel, Motel, & Resort Desk Clerks	519	43-4081
Human Resources Assist, Ex Pay & Timekeep	525	43-4161
Human Resources Managers, All Other	16	11-3049
Human Resrces, Trng, & Lab Rels Specs, All Other	51	13-1079
Hunters & Trappers	570	45-3021
Hydrologists	148	19-2043
Industrial Engineering Technicians	122	17-3026
Industrial Engineers	105	17-2112
Industrial Machinery Mechanics	673	49-9041
Industrial Production Managers	17	11-3051
Industrial Truck & Tractor Operators	848	53-7051
Industrial-Organizational Psychologists	154	19-3032
Infantry	878	55-3016
Infantry Officers	867	55-1016
Information & Record Clerks, All Other	528	43-4199
Inspectors, Testers, Sorters, Samplers, & Weighers	786	51-9061
Installation, Maint, & Repair Workers, All Other	693	49-9099
Installation, Maintenance, & Repair Occupations	640	49-0000
Instructional Coordinators	264	25-9031
Insulation Workers, All Other	599	47-2139
Insulation Workers, Floor, Ceiling, & Wall	597	47-2131
Insulation Workers, Mechanical	598	47-2132
Insurance Appraisers, Auto Damage	44	13-1032
Insurance Claims & Policy Processing Clerks	550	43-9041
Insurance Sales Agents	486	41-3021
Insurance Underwriters	62	13-2053

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Interior Designers	278	27-1025
Internists, General	325	29-1063
Interpreters & Translators	303	27-3091
Interviewers, Except Eligibility & Loan	520	43-4111
Janitors & Clean, Ex Maids & Housekeep Cleaners	431	37-2011
Jewelers & Precious Stone & Metal Workers	787	51-9071
Job Printers	742	51-5021
Judges, Magistrate Judges, & Magistrates	196	23-1023
Kindergarten Teachers, Except Special Education	243	25-2012
Laborers & Freight, Stock, & Material Movers, Hand	850	53-7062
Landscape Architects	91	17-1012
Landscaping & Groundskeeping Workers	435	37-3011
Lathe & Turn Mach Tool Set, Ops, & Tend, Metl & Plas	722	51-4034
Laundry & Dry-Cleaning Workers	746	51-6011
Law Clerks	199	23-2092
Law Teachers, Postsecondary	229	25-1112
Lawyers	193	23-1011
Lay-Out Workers, Metal & Plastic	736	51-4192
Legal & Related Workers, All Other	202	23-9099
Legal Occupations	192	23-0000
Legal Secretaries	543	43-6012
Legal Support Workers, All Other	201	23-2099
Legislators	6	11-1031
Librarians	260	25-4021
Library Assistants, Clerical	521	43-4121
Library Science Teachers, Postsecondary	227	25-1082
Library Technicians	261	25-4031
Library, Museum, Training, & Oth Ed Wrkrs, All Other	267	25-9199
Licensed Practical & Licensed Vocational Nurses	358	29-2061
Life Scientists, All Other	140	19-1099
Life, Physical, & Social Science Occupations	127	19-0000
Life, Physical, & Social Science Techs, All Other	172	19-4099
Lifeguards, Ski Patrol, & Oth Rec Protect Serv Wrkrs	407	33-9092
Loading Machine Operators, Underground Mining	846	53-7033
Loan Counselors	64	13-2071
Loan Interviewers & Clerks	522	43-4131
Loan Officers	65	13-2072
Locker Room, Coatroom, & Dressing Room Attend	453	39-3093
Locksmiths & Safe Repairers	688	49-9094
Locomotive Engineers	824	53-4011
Locomotive Firers	825	53-4012
Lodging Managers	31	11-9081
Log Graders & Scalers	574	45-4023
Logging Equipment Operators	573	45-4022
Logging Workers, All Other	575	45-4029
Logisticians	52	13-1081
Machine Feeders & Offbearers	851	53-7063
Machinists	724	51-4041
Maids & Housekeeping Cleaners	432	37-2012
Mail Clerks & Mail Mach Ops, Ex Postal Service	551	43-9051

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Maintenance & Repair Workers, General	674	49-9042
Maintenance Workers, Machinery	675	49-9043
Makeup Artists, Theatrical & Performance	460	39-5091
Management Analysts	53	13-1111
Management Occupations	3	11-0000
Management, Bus. & Financial Occs, All Other	69	11-13-9999
Management, Business, & Financial Occupations	2	11-13-0000
Managers, All Other	37	11-9199
Manicurists & Pedicurists	461	39-5092
Manufactured Building & Mobile Home Installers	689	49-9095
Marine Engineers & Naval Architects	106	17-2121
Market Research Analysts	151	19-3021
Marketing Managers	8	11-2021
Marriage & Family Therapists	176	21-1013
Massage Therapists	379	31-9011
Material Moving Workers, All Other	859	53-7199
Materials Engineers	107	17-2131
Materials Scientists	145	19-2032
Mathematical Science Occupations, All Other	87	15-2099
Mathematical Science Teachers, Postsecondary	206	25-1022
Mathematical Technicians	86	15-2091
Mathematicians	83	15-2021
Meat, Poultry, & Fish Cutters & Trimmers	708	51-3022
Mechanical Door Repairers	669	49-9011
Mechanical Drafters	115	17-3013
Mechanical Engineering Technicians	123	17-3027
Mechanical Engineers	108	17-2141
Media & Communication Equip. Workers, All Other	312	27-4099
Media & Communication Workers, All Other	304	27-3099
Medical & Clinical Laboratory Technicians	345	29-2012
Medical & Clinical Laboratory Technologists	344	29-2011
Medical & Health Services Managers	32	11-9111
Medical & Public Health Social Workers	181	21-1022
Medical Appliance Technicians	789	51-9082
Medical Assistants	381	31-9092
Medical Equipment Preparers	382	31-9093
Medical Equipment Repairers	681	49-9062
Medical Records & Health Information Technicians	359	29-2071
Medical Scientists, Except Epidemiologists	139	19-1042
Medical Secretaries	544	43-6013
Medical Transcriptionists	383	31-9094
Meeting & Convention Planners	54	13-1121
Mental Health & Substance Abuse Social Workers	182	21-1023
Mental Health Counselors	177	21-1014
Merchandise Displayers & Window Trimmers	279	27-1026
Metal Workers & Plastic Workers, All Other	739	51-4199
Metal-Refining Furnace Operators & Tenders	725	51-4051
Meter Readers, Utilities	534	43-5041
Microbiologists	133	19-1022
Mid School Teachers, Ex Special & Vocational Ed	245	25-2022

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Military Enlisted Tactical Operations & Air/Weapons Spe	881	55-3019
Military Officer Special & Tactical Operations Leader	869	55-1019
Military Specific Occupations	861	55-0000
Mill & Plan Mach Set, Ops, & Tend, Metal & Plastic	723	51-4035
Millwrights	676	49-9044
Mine Cutting & Channeling Machine Operators	632	47-5042
Mining & Geological Engrs, Incl Mining Safety Engrs	109	17-2151
Mining Machine Operators, All Other	633	47-5049
Mix & Blend Mach Setters, Ops, & Tenders	781	51-9023
Mobile Heavy Equipt Mechanics, Except Engines	660	49-3042
Model Makers, Metal & Plastic	727	51-4061
Model Makers, Wood	763	51-7031
Models	493	41-9012
Mold, Core, & Cast Mach, Set, Ops & Tend, Metl & Plas	730	51-4072
Molders, Shapers, & Casters, Except Metal & Plastic	802	51-9195
Motion Picture Projectionists	449	39-3021
Motor Vehicle Operators, All Other	823	53-3099
Motorboat Mechanics	662	49-3051
Motorboat Operators	833	53-5022
Motorcycle Mechanics	663	49-3052
Mult MachTool Set, Ops, & Tend,Metal & Plastic	731	51-4081
Multi-Media Artists & Animators	272	27-1014
Museum Technicians & Conservators	258	25-4013
Music Directors & Composers	290	27-2041
Musical Instrument Repairers & Tuners	682	49-9063
Musicians & Singers	291	27-2042
Natural Sciences Managers	33	11-9121
Network & Computer Systems Administrators	79	15-1071
Network Systems & Data Communications Analysts	80	15-1081
New Accounts Clerks	523	43-4141
News Analysts, Reporters & Corres, All Other	298	27-3029
Nonfarm Animal Caretakers	445	39-2021
Nuclear Engineers	110	17-2161
Nuclear Medicine Technologists	349	29-2033
Nuclear Power Reactor Operators	768	51-8011
Nuclear Technicians	167	19-4051
Numerical Tool & Process Control Programmers	715	51-4012
Nursing Aides, Orderlies, & Attendants	373	31-1012
Nursing Instructors & Teachers, Postsecondary	225	25-1072
Obstetricians & Gynecologists	326	29-1064
Occupation Unknown	882	99-9999
Occupational Health & Safety Specialists	363	29-9011
Occupational Health & Safety Technicians	364	29-9012
Occupational Therapist Aides	376	31-2012
Occupational Therapist Assistants	375	31-2011
Occupational Therapists	335	29-1122
Occupl Hlth & Safety Specs & Techs, All Other	365	29-9019
Office & Administrative Support Occupations	500	43-0000
Office & Administrative Support Workers, All Other	556	43-9199
Office Clerks, General	552	43-9061

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Office Machine Operators, Except Computer	553	43-9071
Operating Engineers & Oth Const Equipment Ops	592	47-2073
Operations Research Analysts	84	15-2031
Ophthalmic Laboratory Technicians	790	51-9083
Opticians, Dispensing	360	29-2081
Optometrists	321	29-1041
Oral & Maxillofacial Surgeons	316	29-1022
Order Clerks	524	43-4151
Orthodontists	317	29-1023
Orthotists & Prosthetists	361	29-2091
Outdoor Power Equipt & Other Small Eng Mechanic	664	49-3053
Packaging & Filling Machine Operators & Tenders	791	51-9111
Packers & Packagers, Hand	852	53-7064
Painters, Construction & Maintenance	600	47-2141
Painters, Transportation Equipment	793	51-9122
Painting, Coating, & Decorating Workers	794	51-9123
Paper Goods Machine Setters, Ops, & Tenders	803	51-9196
Paperhanglers	601	47-2142
Paralegals & Legal Assistants	197	23-2011
Parking Enforcement Workers	399	33-3041
Parking Lot Attendants	837	53-6021
Parts Salespersons	483	41-2022
Patternmakers, Metal & Plastic	728	51-4062
Patternmakers, Wood	764	51-7032
Paving, Surfacing, & Tamping Equipment Operators	590	47-2071
Payroll & Timekeeping Clerks	509	43-3051
Pediatricians, General	327	29-1065
Personal & Home Care Aides	471	39-9021
Personal Care & Service Occupations	440	39-0000
Personal Care & Service Workers, All Other	475	39-9099
Personal Financial Advisors	61	13-2052
Pest Control Workers	434	37-2021
Pesticide Handlers, Spray, & Applicators, Vegetation	436	37-3012
Petrol Pump System Ops, Refinery Ops, & Gaugers	775	51-8093
Petroleum Engineers	111	17-2171
Pharmacists	322	29-1051
Pharmacy Aides	384	31-9095
Pharmacy Technicians	353	29-2052
Philosophy & Religion Teachers, Postsecondary	236	25-1126
Photographers	309	27-4021
Photographic Process Workers	795	51-9131
Photographic Processing Machine Operators	796	51-9132
Physical Scientists, All Other	149	19-2099
Physical Therapist Aides	378	31-2022
Physical Therapist Assistants	377	31-2021
Physical Therapists	336	29-1123
Physician Assistants	331	29-1071
Physicians & Surgeons, All Other	330	29-1069
Physicists	142	19-2012
Physics Teachers, Postsecondary	215	25-1054

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Pile-Driver Operators	591	47-2072
Pipelayers	602	47-2151
Plant & System Operators, All Other	776	51-8099
Plasterers & Stucco Masons	604	47-2161
Plate & Coat Mach Set, Ops, & Tend, Metal & Plastic	737	51-4193
Plumbers, Pipefitters, & Steamfitters	603	47-2152
Podiatrists	332	29-1081
Police & Sheriff's Patrol Officers	400	33-3051
Police, Fire, & Ambulance Dispatchers	532	43-5031
Political Science Teachers, Postsecondary	220	25-1065
Political Scientists	161	19-3094
Postal Serv Mail Sort, Processors, & Processing	537	43-5053
Postal Service Clerks	535	43-5051
Postal Service Mail Carriers	536	43-5052
Postmasters & Mail Superintendents	34	11-9131
Postsecondary Teachers, All Other	241	25-1199
Pourers & Casters, Metal	726	51-4052
Power Distributors & Dispatchers	769	51-8012
Power Plant Operators	770	51-8013
Precision Instrument & Equipmt Repairers, All Other	684	49-9069
Prepress Technicians & Workers	743	51-5022
Preschool Teachers, Except Special Education	242	25-2011
Pressers, Textile, Garment, & Related Materials	747	51-6021
Printing Machine Operators	744	51-5023
Printing Workers, All Other	745	51-5099
Private Detectives & Investigators	403	33-9021
Probation Offcrs & Correctional Treatment Specialis	185	21-1092
Procurement Clerks	510	43-3061
Producers & Directors	284	27-2012
Production Occupations	694	51-0000
Production Workers, All Other	806	51-9199
Production, Planning, & Expediting Clerks	538	43-5061
Professional & Related Occupations	70	15-29-0000
Professional & Related Occupations	88	15-29-0000
Professional & Related Occupations, All Other	369	15-29-9999
Proofreaders & Copy Markers	554	43-9081
Property, Real Estate, & Community Assn Mgrs	35	11-9141
Prosthodontists	318	29-1024
Protective Service Occupations	387	33-0000
Protective Service Workers, All Other	408	33-9099
Psychiatric Aides	374	31-1013
Psychiatric Technicians	354	29-2053
Psychiatrists	328	29-1066
Psychologists, All Other	155	19-3039
Psychology Teachers, Postsecondary	221	25-1066
Public Address System & Other Announcers	294	27-3012
Public Relations Managers	10	11-2031
Public Relations Specialists	299	27-3031
Pump Operators, Except Wellhead Pumpers	854	53-7072
Purch Agents, Ex Wholesale, Retail, & Farm Prods	42	13-1023

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Purchasing Agents & Buyers, Farm Products	40	13-1021
Purchasing Managers	18	11-3061
Radar & Sonar Technicians	879	55-3017
Radiation Therapists	337	29-1124
Radio & Television Announcers	293	27-3011
Radio Mechanics	643	49-2021
Radio Operators	307	27-4013
Radiologic Technologists & Technicians	350	29-2034
Rail Car Repairers	661	49-3043
Rail Transportation Workers, All Other	830	53-4099
Rail Yard Engineers, Dinkey Operators, & Hostlers	826	53-4013
Railroad Brake, Signal, & Switch Operators	827	53-4021
Railroad Conductors & Yardmasters	828	53-4031
Rail-Track Laying & Maintenance Equipment Ops	621	47-4061
Real Estate Brokers	494	41-9021
Real Estate Sales Agents	495	41-9022
Receptionists & Information Clerks	526	43-4171
Recreation & Fitness Studies Teachrs, Postsecond	239	25-1193
Recreation Workers	473	39-9032
Recreational Therapists	338	29-1125
Recreational Vehicle Service Technicians	666	49-3092
Refractory Materials Repairers, Ex Brickmasons	677	49-9045
Refuse & Recyclable Material Collectors	856	53-7081
Registered Nurses	333	29-1111
Rehabilitation Counselors	178	21-1015
Reinforcing Iron & Rebar Workers	605	47-2171
Religious Workers, All Other	190	21-2099
Reporters & Correspondents	297	27-3022
Reservation & Trans Ticket Agents & Travel Clerks	527	43-4181
Residential Advisors	474	39-9041
Respiratory Therapists	339	29-1126
Respiratory Therapy Technicians	355	29-2054
Retail Salespersons	484	41-2031
Riggers	690	49-9096
Rock Splitters, Quarry	634	47-5051
Rolling Mach Setters, Ops, & Tends, Metal & Plastic	718	51-4023
Roof Bolters, Mining	635	47-5061
Roofers	606	47-2181
Rotary Drill Operators, Oil & Gas	627	47-5012
Roustabouts, Oil & Gas	636	47-5071
Sailors & Marine Oilers	831	53-5011
Sales & Related Occupations	477	41-0000
Sales & Related Workers, All Other	499	41-9099
Sales Engineers	496	41-9031
Sales Managers	9	11-2022
Sales Representatives, Services, All Other	489	41-3099
Sales Reps, Whlesale & Mfg, Tech & Scientific Prods	490	41-4011
Sales Reps, Whlsale & Mfg, Ex Tech & Scientific Prods	491	41-4012
Sawing Mach Setters, Ops, & Tenders, Wood	765	51-7041
Secondary School Teachers, Ex Special & Voc Ed	247	25-2031

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Secretaries, Admin Assist, & Oth Off Suprt Wrkers, All O	557	43-9999
Secretaries, Except Legal, Medical, & Executive	545	43-6014
Securities, Commodities, & Financial Serv Sales Agts	487	41-3031
Security & Fire Alarm Systems Installers	652	49-2098
Security Guards	405	33-9032
Segmental Pavers	623	47-4091
Self-Enrichment Education Teachers	253	25-3021
Semiconductor Processors	797	51-9141
Separate, Filter, Clarify, Precipitate, & Still Mach Se	778	51-9012
Septic Tank Servicers & Sewer Pipe Cleaners	622	47-4071
Service Occupations	370	31-39-0000
Service Occupations, All Other	476	31-39-9999
Service Station Attendants	838	53-6031
Service Unit Operators, Oil, Gas, & Mining	628	47-5013
Set & Exhibit Designers	280	27-1027
Sewers, Hand	751	51-6051
Sewing Machine Operators	748	51-6031
Shampooers	462	39-5093
Sheet Metal Workers	607	47-2211
Ship Engineers	834	53-5031
Shipping, Receiving, & Traffic Clerks	539	43-5071
Shoe & Leather Workers & Repairers	749	51-6041
Shoe Machine Operators & Tenders	750	51-6042
Shuttle Car Operators	857	53-7111
Signal & Track Switch Repairers	691	49-9097
Skin Care Specialists	463	39-5094
Slaughterers & Meat Packers	709	51-3023
Slot Key Persons	442	39-1012
Social & Community Service Managers	36	11-9151
Social & Human Service Assistants	186	21-1093
Social Science Research Assistants	168	19-4061
Social Sciences Teachers, Postsecondary, All Other	223	25-1069
Social Scientists & Related Workers, All Other	162	19-3099
Social Work Teachers, Postsecondary	230	25-1113
Social Workers, All Other	183	21-1029
Sociologists	156	19-3041
Sociology Teachers, Postsecondary	222	25-1067
Soil & Plant Scientists	130	19-1013
Sound Engineering Technicians	308	27-4014
Special Ed Teachers, Preschool, Kindergarten, &	249	25-2041
Special Education Teachers, Middle School	250	25-2042
Special Education Teachers, Secondary School	251	25-2043
Special Forces	880	55-3018
Special Forces Officers	868	55-1017
Speech-Language Pathologists	340	29-1127
Stationary Engineers & Boiler Operators	771	51-8021
Statistical Assistants	555	43-9111
Statisticians	85	15-2041
Stock Clerks & Order Fillers	540	43-5081
Stonemasons	581	47-2022

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Structural Iron & Steel Workers	608	47-2221
Structural Metal Fabricators & Fitters	701	51-2041
Substance Abuse & Behavioral Disorder Counselors	174	21-1011
Subway & Streetcar Operators	829	53-4041
Surgeons	329	29-1067
Surgical Technologists	356	29-2055
Survey Researchers	152	19-3022
Surveying & Mapping Technicians	125	17-3031
Surveyors	93	17-1022
Switchboard Operators, Including Answering Service	502	43-2011
Tailors, Dressmakers, & Custom Sewers	752	51-6052
Tank Car, Truck, & Ship Loaders	858	53-7121
Tapers	594	47-2082
Tax Examiners, Collectors, & Revenue Agents	66	13-2081
Tax Preparers	67	13-2082
Taxi Drivers & Chauffeurs	822	53-3041
Teacher Assistants	265	25-9041
Teachers & Instructors, All Other	254	25-3099
Teachers, Primary, Secondary, & Adult, All Other	255	25-3999
Team Assemblers	703	51-2092
Technical Writers	301	27-3042
Telecomm Equipt Install & Repair, Ex Line Install	644	49-2022
Telecommunications Line Installers & Repairers	679	49-9052
Telemarketers	497	41-9041
Telephone Operators	503	43-2021
Tellers	511	43-3071
Terrazzo Workers & Finishers	588	47-2053
Textile Bleaching & Dyeing Mach Ops & Tenders	753	51-6061
Textile Cutting Machine Setters, Ops, & Tenders	754	51-6062
Textile Knit & Weave Mach Setters, Ops & Tenders	755	51-6063
Textile Wind, Twist, & Draw Out Mach Set, Ops & Tend	756	51-6064
Textile, Apparel, & Furnishings Workers, All Other	760	51-6099
Therapists, All Other	341	29-1129
Tile & Marble Setters	586	47-2044
Timing Device Assemblers, Adjusters, & Calibrators	704	51-2093
Tire Builders	804	51-9197
Tire Repairers & Changers	667	49-3093
Title Examiners, Abstractors, & Searchers	200	23-2093
Tool & Die Makers	732	51-4111
Tool Grinders, Filers, & Sharpeners	738	51-4194
Tour Guides & Escorts	466	39-6021
Traffic Technicians	839	53-6041
Training & Development Managers	15	11-3042
Training & Development Specialists	50	13-1073
Trans & Material Moving Occupations, All Other	860	53-9999
Trans Attendants, Ex Flight Attendants & Bag Porters	469	39-6032
Transit & Railroad Police	401	33-3052
Transportation & Material Moving Occupations	807	53-0000
Transportation Inspectors	840	53-6051
Transportation Workers, All Other	841	53-6099

## Alphabetical Index of Occupations

OCCUPATION	LINE NUMBER	CALIFORNIA SOC CODE
Transportation, Storage, & Distribution Managers	19	11-3071
Travel Agents	488	41-3041
Travel Guides	467	39-6022
Tree Trimmers & Pruners	437	37-3013
Truck Drivers, Heavy & Tractor-Trailer	820	53-3032
Truck Drivers, Light or Delivery Services	821	53-3033
Umpires, Referees, & Other Sports Officials	287	27-2023
Upholsterers	759	51-6093
Urban & Regional Planners	157	19-3051
Ushers, Lobby Attendants, & Ticket Takers	450	39-3031
Veh & Mobile Equipt Mechs, Install, & Repair, All Oth	668	49-3099
Veterinarians	342	29-1131
Veterinary Assistants & Lab Animal Caretakers	385	31-9096
Veterinary Technologists & Technicians	357	29-2056
Vocational Education Teachers, Middle School	246	25-2023
Vocational Education Teachers, Postsecondary	240	25-1194
Vocational Education Teachers, Secondary School	248	25-2032
Waiters & Waitresses	422	35-3031
Watch Repairers	683	49-9064
Water & Liquid Waste Treat Plant & System Ops	772	51-8031
Water Transportation Workers, All Other	835	53-5099
Weigh, Measure, Check, & Sample, Recordkeep	541	43-5111
Weld, Solder, & Braze Mach Setters, Ops, & Tenders	734	51-4122
Welders, Cutters, Solderers, & Brazers	733	51-4121
Wellhead Pumpers	855	53-7073
Wholesale & Retail Buyers, Except Farm Products	41	13-1022
Woodwork Mach Setters, Ops, & Tenders, Ex Sawing	766	51-7042
Woodworkers, All Other	767	51-7099
Word Processors & Typists	548	43-9022
Writers & Authors	302	27-3043
Zoologists & Wildlife Biologists	134	19-1023